

# Search Request Form

Scientific and Technical Information Center

Requester's Full Name: L. Eric Crane Examiner #: 65753 Date: 06/16/04Art Unit: 1623 Phone Number: 272-0651 Serial No. 09/339,818Mail Box & Bldg/Room Loc: 5D-35/REM Results Format Preferred: PAPER[5C-18/REMSSEN]

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, key words, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and/or abstract..

Title of Invention: See attached copy of claims.Inventors (please provide full names): See attached copy of claims.Earliest Priority Filing Date: 07/01/98

*\*For Sequence Searches only\* Please include all of the pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search for cyclodextrin polymers of the general types found in EP 502,194 (copy attached) wherein only two (2) hydroxyls of the cyclodextrin starting compounds are converted into reactive groups which then form the basis for making ONLY linear cyclodextrin co-polymers. The '194 EP publication illustrates how this may be done in several different ways. See claim 1 of the '818 application for''''i an illustration of what applicants are claiming generically. The '818 specific embodiments are based on bis-primary di-iodo derivatives (primary face bridging intermediates) and periodate oxidation products (secondary face specific).

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**STAFF USE ONLY**

	Type of Search	Vendors/cost as applicable
Searcher: _____	NA Sequence(#) _____	STN <u>905,18</u>
Searcher Phone #: _____	AA Sequence(#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>✓</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr. Link _____
Date Completed: <u>6/22</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Full Text _____	Seq.Syst'ms _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other(Specify) _____

1/8

L1 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1992:614893 HCAPLUS  
 DOCUMENT NUMBER: 117:214893  
 ENTRY DATE: Entered STN: 28 Nov 1992  
 TITLE: Cyclodextrin polymers and cyclodextrin films formed therefrom  
 INVENTOR(S): Yoshinaga, Masanobu  
 PATENT ASSIGNEE(S): Toppan Printing Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 67 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 INT. PATENT CLASSIF.:  
     MAIN: C08G018-32  
     SECONDARY: C08G071-02; C08G069-40; C08G063-66; C08G064-00;  
                 C08G069-26; C08G075-20; C08F299-04  
 CLASSIFICATION: 44-6 (Industrial Carbohydrates)  
                   Section cross-reference(s): 35, 38  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9206127	A1	19920416	WO 1991-JP1012	19910729
W: CA, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
CA 2066616	AA	19920402	CA 1991-2066616	19910729
EP 502194	A1	19920909	EP 1991-913122	19910729 <--
EP 502194	B1	19971001		
R: BE, CH, DE, FR, GB, IT, LI, NL				
JP 05086103	A2	19930406	JP 1991-216036	19910801
US 5208316	A	19930504	US 1992-842157	19920323
PRIORITY APPLN. INFO.:			JP 1990-263581	19901001
			WO 1991-JP1012	19910729

## ABSTRACT:

The title polymers, selected from polyurethanes, polyureas, (unsatd.) polyesters, polycarbonates polyamides and polysulfones, having cyclodextrin units in the main chain, and useful as degradable polymers, and for manufacture of separation membranes, are prepared Thus, a polyester, prepared by polycondensation of di-Me terephthalate with  $\beta$ -cyclodextrin Me ether derivs., began degradation after 30 days in landfill.

SUPPL. TERM: biodegradable cyclodextrin polymer; polyester cyclodextrin polymer biodegradable; polyurethane cyclodextrin polymer prepn; polycarbonate cyclodextrin polymer prepn; polyamide cyclodextrin polymer prepn; polyurea cyclodextrin polymer prepn; polysulfone cyclodextrin polymer prepn  
 INDEX TERM: Membranes  
                   (cyclodextrin polymers for)  
 INDEX TERM: Biodegradable materials  
                   (cyclodextrin polymers, preparation of)  
 INDEX TERM: Polysulfonamides  
                   ROLE: PREP (Preparation)  
                   (aromatic, cyclodextrin-based, preparation of)  
 INDEX TERM: Polyamides, preparation

Polycarbonates, preparation  
Polyesters, preparation  
Polyureas  
Urethane polymers, preparation  
ROLE: PREP (Preparation)  
(cyclodextrin-based, preparation of)

INDEX TERM: Polyesters, preparation  
ROLE: PREP (Preparation)  
(cyclodextrin-based, unsatd., preparation of)

INDEX TERM: 75-44-5DP, Carbonic dichloride, polymers with, cyclodextrin  
derivs. 100-21-0DP, 1,4-Benzenedicarboxylic acid, polymers  
with cyclodextrin derivs. and maleic anhydride 107-15-3DP,  
Ethylenediamine, polymers with carboxy-containing cyclodextrin  
derivs. 107-21-1DP, 1,2-Ethanediol, polymers with carboxy  
group-containing cyclodextrins 108-31-6DP, 2,5-Furandione,  
polymers with cyclodextrin derivs. and terephthalic acid  
111-50-2DP, Hexanedioyl dichloride, polymers with  
amino-containing cyclodextrins 120-61-6DP, Dimethyl  
terephthalate, polymers with cyclodextrin derivs.  
124-04-9DP, Hexanedioic acid, polymers with cyclodextrin  
acetates 124-09-4DP, 1,6-Hexanediamine, polymers with  
carboxy-containing cyclodextrin derivs. 822-06-0DP, polymers  
with cyclodextrin derivs. 2888-06-4DP, polymers with  
amino-containing cyclodextrins  
ROLE: PREP (Preparation)  
(preparation of, biodegradable)

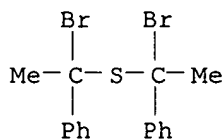
INDEX TERM: 100-39-0, Benzyl bromide 106-95-6, Allyl bromide,  
reactions 3119-64-0, Diphenylmethane-p,p'-disulfonyl  
chloride  
ROLE: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with cyclodextrin derivs.)

INDEX TERM: 100-51-6, Benzyl alcohol, reactions  
ROLE: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with cyclodextrin iodide)

INDEX TERM: 98-80-6, Phenylboric acid 100-52-7, Benzaldehyde,  
reactions 3582-71-6, 1,1,3,3,5,5-Hexamethyl-1,5-  
dichlorotrisiloxane 5357-38-0 5789-30-0,  
1,2-Dibromo-1,2-diphenylethane 7693-46-1, p-Nitrophenyl  
chloroformate 13528-93-3, 1,2-  
Bis(chlorodimethylsilyl)ethane 20248-86-6,  
4,4'-Bis(bromomethyl)biphenyl 90549-27-2 144446-70-8  
ROLE: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with cyclodextrins)

INDEX TERM: 7585-39-9DP,  $\beta$ -Cyclodextrin, derivs., polymers  
10016-20-3DP,  $\alpha$ -Cyclodextrin, derivs., polymers  
17465-86-0DP,  $\gamma$ -Cyclodextrin, derivs., polymers  
ROLE: PREP (Preparation)  
(with diamines or diisocyanates, phosgene or dicarboxylic  
acids, preparation of, biodegradable)

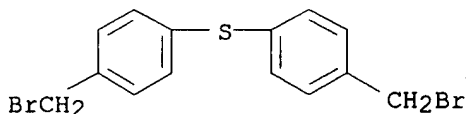
L2 ANSWER 1 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 144446-70-8 REGISTRY  
 CN Benzene, 1,1'-[thiobis(1-bromoethylidene)]bis- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C16 H16 Br2 S  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL  
 DT.CA Cplus document type: Patent  
 RL.P Roles from patents: RACT (Reactant or reagent); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 2 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 90549-27-2 REGISTRY  
 CN Benzene, 1,1'-thiobis[4-(bromomethyl)- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C14 H12 Br2 S  
 LC STN Files: CA, CAPLUS, CASREACT, USPATFULL  
 DT.CA Cplus document type: Patent  
 RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent);  
 USES (Uses)

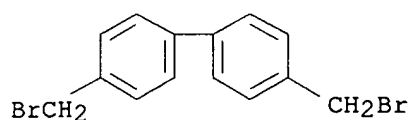


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

6 REFERENCES IN FILE CA (1907 TO DATE)  
 6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 3 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 20248-86-6 REGISTRY  
 CN 1,1'-Biphenyl, 4,4'-bis(bromomethyl)- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN p,p'-Bitolyl, α,α'-dibromo- (6CI, 8CI)  
 OTHER NAMES:  
 CN α,α'-Dibromo-p,p'-ditolyl  
 CN 4,4'-Bis(bromomethyl) diphenyl  
 CN 4,4'-Bis(bromomethyl)-1,1'-biphenyl

CN 4,4'-Bis(bromomethyl)biphenyl  
FS 3D CONCORD  
MF C14 H12 Br2  
CI COM  
LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CSCHEM, IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPATFULL  
(\*File contains numerically searchable property data)  
DT.CA Caplus document type: Journal; Patent  
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)  
RLD.P Roles for non-specific derivatives from patents: USES (Uses)  
RL.NP Roles from non-patents: PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); NORL (No role in record)



**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

96 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
96 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

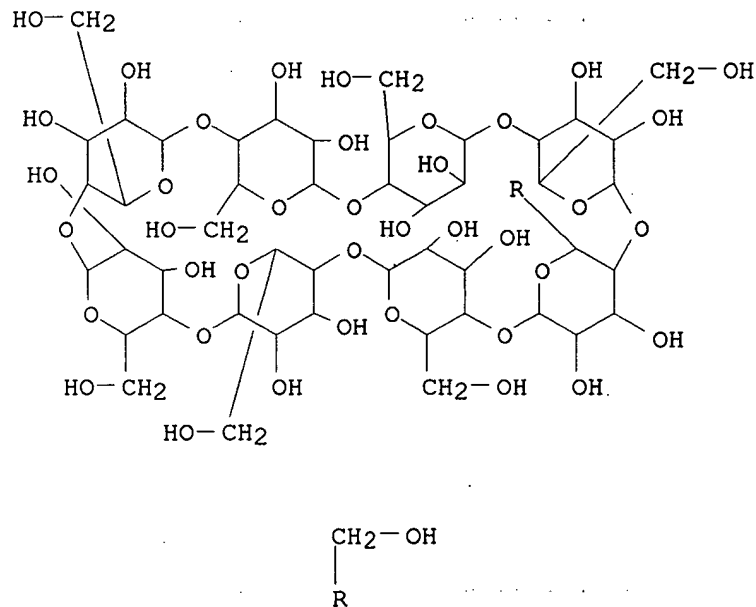
L2 ANSWER 4 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 17465-86-0 REGISTRY  
CN  $\gamma$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN 2,4,7,9,12,14,17,19,22,24,27,29,32,34,37,39-Hexadecaoxanonacyclo[36.2.2.23,6.28,11.213,16.218,21.223,26.228,31.233,36]hexapentacontane,  
 $\gamma$ -cyclodextrin deriv.  
OTHER NAMES:  
CN  $\gamma$ -Dextrin  
CN Cavamax W 8  
CN Celdex C 100  
CN Celdex G 100  
CN Cyclomaltooctaose  
CN Cyclooctaamylose  
CN Dexy Pearl  $\gamma$ -100  
CN Ringdex C  
CN Stereoisomer of 5,10,15,20,25,30,35,40-octakis(hydroxymethyl)-  
2,4,7,9,12,14,17,19,22,24,27,29,32,34,37,39-hexadecaoxanonacyclo[36.2.2.23,6.28,11.213,16.218,21.223,26.228,31.233,36]hexapentacontane-  
41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56-hexadecol  
DR 216309-81-8, 217487-02-0  
MF C48 H80 O40  
CI COM  
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM\*, DIOGENES, DRUGU, EMBASE, GMELIN\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS, PHAR, PIRA, PROMT, TOXCENTER, USPAT2, USPATFULL, VETU

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*, NDSL\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

DT.CA CAplus document type: Conference; Dissertation; Journal; Patent; Report  
 RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study);  
 CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC  
 (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process);  
 PRP (Properties); RACT (Reactant or reagent); USES (Uses)  
 RLD.P Roles for non-specific derivatives from patents: ANST (Analytical  
 study); BIOL (Biological study); CMBI (Combinatorial study); PREP  
 (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or  
 reagent); USES (Uses)  
 RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological  
 study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU  
 (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT  
 (Reactant or reagent); USES (Uses); NORL (No role in record)  
 RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical  
 study); BIOL (Biological study); FORM (Formation, nonpreparative); PREP  
 (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or  
 reagent); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3372 REFERENCES IN FILE CA (1907 TO DATE)

774 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

3378 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 5 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 13528-93-3 REGISTRY

CN Silane, 1,2-ethanediylbis[chlorodimethyl- (9CI) (CA INDEX NAME)

## OTHER CA INDEX NAMES:

CN 2,5-Disilahehexane, 2,5-dichloro-2,5-dimethyl- (6CI, 7CI, 8CI)

## OTHER NAMES:

CN 1,1,4,4-Tetramethyl-1,4-dichlorodisilylethylene

CN 1,2-Bis(chlorodimethylsilyl)ethane

CN 1,2-Bis(dimethylchlorosilyl)ethane

CN 2,5-Dimethyl-2,5-dichloro-2,5-disilahehexane

CN Ethylenebis[chlorodimethylsilane]

CN LS 7080

FS 3D CONCORD

MF C6 H16 Cl2 Si2

CI COM

LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, SPECINFO, TOXCENTER, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*, NDSL\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

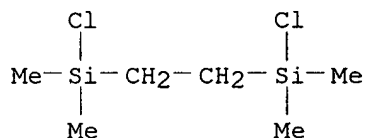
DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation)

RL.NP Roles from non-patents: FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); PREP (Preparation)



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

203 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

205 REFERENCES IN FILE CAPLUS (1907 TO DATE)

4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 6 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 10016-20-3 REGISTRY

CN  $\alpha$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

## OTHER CA INDEX NAMES:

CN 2,4,7,9,12,14,17,19,22,24,27,29-Dodecaoxaheptacyclo[26.2.2.23,6.28,11.213,16.218,21.223,26]dotetracontane,  $\alpha$ -cyclodextrin deriv.

CN Cyclohexaamylose (6CI)

## OTHER NAMES:

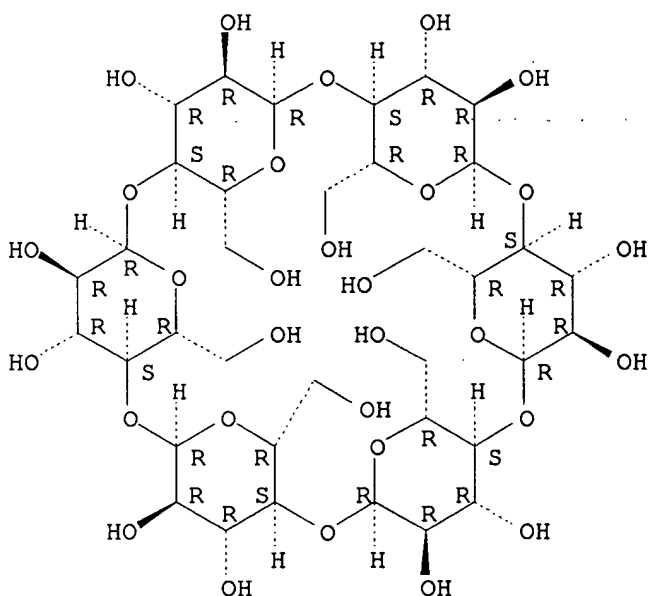
CN  $\alpha$ -CycloamyloseCN  $\alpha$ -DextrinCN  $\alpha$ -Schardinger dextrin

CN Alfadex

CN Celdex A 100  
CN Cyclohexadextrin  
CN Cyclomaltohexaose  
CN Cyclomaltohexose  
CN Dextrin,  $\alpha$ -cyclo  
CN Dexy Pearl  $\alpha$ -100  
CN NSC 269470  
CN Ringdex A  
CN Stereoisomer of 5,10,15,20,25,30-hexakis(hydroxymethyl)-  
2,4,7,9,12,14,17,19,22,24,27,29-dodecaoxaheptacyclo[26.2.2.23,6.28,11.213,  
16.218,21.223,26]dotetracontane-31,32,33,34,35,36,37,38,39,40,41,42-  
dodecol  
FS STEREOSEARCH  
DR 23513-50-0, 41871-62-9, 47910-04-3  
MF C36 H60 O30  
CI COM  
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS,  
CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DETHERM\*, DRUGU, EMBASE,  
GMELIN\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS, NAPRALERT,  
NIOSHTIC, PHAR, PIRA, PROMT, RTECS\*, SPECINFO, TOXCENTER, USAN, USPAT2,  
USPATFULL, VETU  
(\*File contains numerically searchable property data)  
Other Sources: EINECS\*\*, NDSL\*\*, TSCA\*\*, WHO  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)  
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent;  
Preprint; Report  
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study);  
FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU  
(Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT  
(Reactant or reagent); USES (Uses)  
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical  
study); BIOL (Biological study); CMBI (Combinatorial study); FORM  
(Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP  
(Properties); RACT (Reactant or reagent); USES (Uses)  
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological  
study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU  
(Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT  
(Reactant or reagent); USES (Uses); NORL (No role in record)  
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical  
study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC  
(Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process);  
PRP (Properties); RACT (Reactant or reagent); USES (Uses)

Absolute stereochemistry.





\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4285 REFERENCES IN FILE CA (1907 TO DATE)  
 868 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 4295 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 7 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 7693-46-1 REGISTRY

CN Carbonochloridic acid, 4-nitrophenyl ester (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Formic acid, chloro-, p-nitrophenyl ester (6CI, 7CI, 8CI)

OTHER NAMES:

CN (4-Nitrophenoxy)carbonyl chloride

CN (p-Nitrophenoxy)carbonyl chloride

CN 4-Nitrophenyl chloroformate

CN Chloroformic acid p-nitrophenyl ester

CN p-Nitrophenol chloroformate

CN p-Nitrophenyl chlorocarbonate

CN p-Nitrophenyl chloroformate

FS 3D CONCORD

MF C7 H4 Cl N O4

CI COM

LC STN Files: AGRICOLA, BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, HODOC\*, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, PS, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*, NDSL\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Conference; Journal; Patent

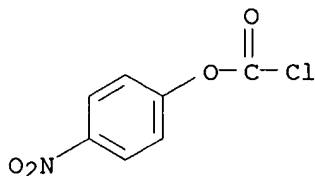
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation); PROC (Process); RACT

(Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1195 REFERENCES IN FILE CA (1907 TO DATE)  
 58 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 1201 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 8 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 7585-39-9 REGISTRY

CN  $\beta$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2,4,7,9,12,14,17,19,22,24,27,29,32,34-Tetradecaaxoctacyclo[31.2.2.23,6.28,11.213,16.218,21.223,26.228,31]nonatetracontane,  $\beta$ -cyclodextrin deriv.

CN Cycloheptaamylose (7CI)

OTHER NAMES:

CN  $\beta$ -Cycloamylose

CN  $\beta$ -Cycloheptaamylose

CN  $\beta$ -Dextrin

CN Betadex

CN BW 7

CN BW 7 (polysaccharide)

CN Cavamax W 7

CN Celdex B 100

CN Celdex N

CN Cycloheptaglucan

CN Cycloheptaglucosan

CN Cyclomaltoheptaose

CN Dextrin,  $\beta$ -cyclo

CN Kleptose

CN Kleptose B

CN NSC 269471

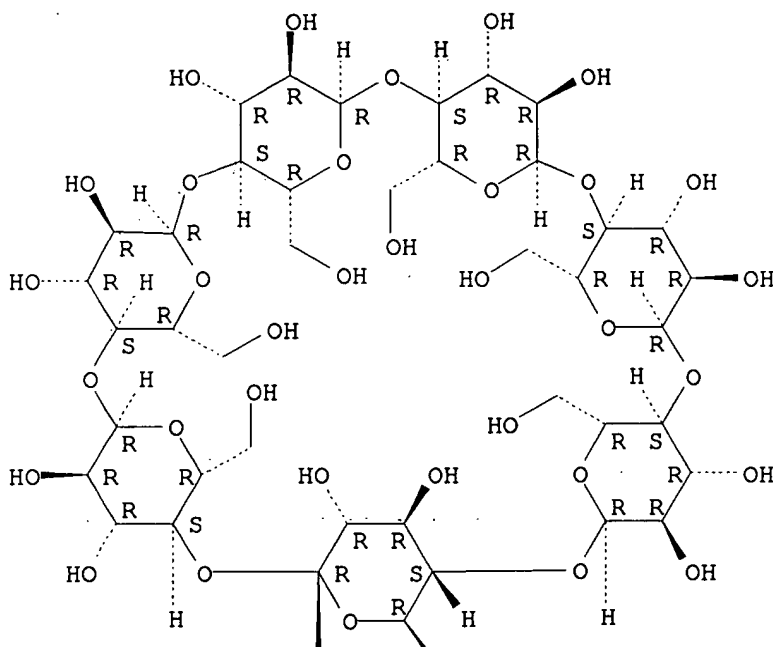
CN NSC 314334

CN Rhodocap N

CN Ringdex B  
CN Ringdex BL  
CN Schardinger  $\beta$ -dextrin  
CN Stereoisomer of 5,10,15,20,25,30,35-heptakis(hydroxymethyl)-  
2,4,7,9,12,14,17,19,22,24,27,29,32,34-tetradecaaxaocyclo[31.2.2.23,6.28  
,11.213,16.218,21.223,26.228,31]nonatetracontane-  
36,37,38,39,40,41,42,43,44,45,46,47,48,49-tetradecol  
FS STEREOSEARCH  
DR 449728-55-6, 37331-89-8, 47918-72-9  
MF C42 H70 O35  
CI COM  
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,  
CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DETHERM\*, DRUGU, EMBASE,  
GMELIN\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, NAPRALERT, NIOSHTIC,  
PIRA, PROMT, PS, RTECS\*, TOXCENTER, USAN, USPAT2, USPATFULL, VETU, VTB  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*, WHO  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)  
DT.CA Caplus document type: Conference; Dissertation; Journal; Patent;  
Preprint; Report  
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study);  
CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC  
(Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process);  
PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role  
in record)  
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical  
study); BIOL (Biological study); CMBI (Combinatorial study); FORM  
(Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP  
(Properties); RACT (Reactant or reagent); USES (Uses)  
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological  
study); CMBI (Combinatorial study); FORM (Formation, nonpreparative);  
MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC  
(Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses);  
NORL (No role in record)  
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical  
study); BIOL (Biological study); CMBI (Combinatorial study); FORM  
(Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence);  
PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or  
reagent); USES (Uses)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

11496 REFERENCES IN FILE CA (1907 TO DATE)  
 4389 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 11544 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 9 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 5789-30-0 REGISTRY  
 CN Benzene, 1,1'-(1,2-dibromo-1,2-ethanediyl)bis- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Bibenzyl,  $\alpha,\alpha'$ -dibromo- (6CI, 8CI)  
 OTHER NAMES:  
 CN  $\alpha,\alpha'$ -Dibromobibenzyl  
 CN 1,2-Dibromo-1,2-diphenylethane  
 CN NSC 16621  
 CN Stilbene dibromide  
 FS 3D CONCORD  
 MF C14 H12 Br2  
 LC STN Files: BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT,

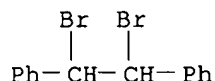
CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, GMELIN\*, HODOC\*, IFICDB,  
IFIPAT, IFIUDB, SPECINFO, TOXCENTER, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*, NDSL\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Conference; Journal; Patent; Report  
RL.P Roles from patents: RACT (Reactant or reagent); USES (Uses)  
RL.NP Roles from non-patents: BIOL (Biological study); FORM (Formation,  
nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process);  
PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role  
in record)



**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

103 REFERENCES IN FILE CA (1907 TO DATE)

103 REFERENCES IN FILE CAPLUS (1907 TO DATE)

9 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 10 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 5357-38-0 REGISTRY

CN Silane, methylenebis[chlorodimethyl- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2,4-Disilapentane, 2,4-dichloro-2,4-dimethyl- (6CI, 7CI, 8CI)

OTHER NAMES:

CN 2,4-Dichloro-2,4-dimethyl-2,4-disilapentane

CN Bis(chlorodimethylsilyl)methane

CN Chlorodimethyl(chlorodimethylsilylmethyl)silane

FS 3D CONCORD

DR 124211-70-7

MF C5 H14 Cl2 Si2

CI COM

LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, CASREACT, CHEMLIST, GMELIN\*,  
HODOC\*, TOXCENTER, USPATFULL

(\*File contains numerically searchable property data)

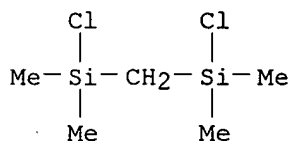
Other Sources: NDSL\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: FORM (Formation, nonpreparative); PREP  
(Preparation); RACT (Reactant or reagent); USES (Uses); NORL (No role in  
record)

RL.NP Roles from non-patents: ANST (Analytical study); FORM (Formation,  
nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties);  
RACT (Reactant or reagent); NORL (No role in record)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

75 REFERENCES IN FILE CA (1907 TO DATE)  
 75 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 21 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 11 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 3582-71-6 REGISTRY  
 CN Trisiloxane, 1,5-dichloro-1,1,3,3,5,5-hexamethyl- (6CI, 7CI, 8CI, 9CI)  
 (CA INDEX NAME)

OTHER NAMES:

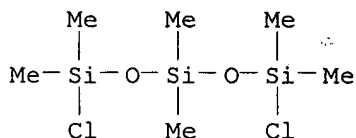
CN 1,1,3,3,5,5-Hexamethyl-1,5-dichlorotrisiloxane  
 CN 1,5-Dichloro-1,1,3,3,5,5-hexamethyltrisiloxane  
 CN 1,5-Dichlorohexamethyltrisiloxane  
 CN 1-Chloro-3-chlorodimethylsilyloxy-1,1,3,3-tetramethyldisiloxane  
 CN Bis(chlorodimethylsiloxy)dimethylsilane  
 CN Hexamethyl-1,5-dichlorotrisiloxane  
 MF C6 H18 Cl2 O2 Si3  
 CI COM  
 LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS,  
 CHEMINFORMRX, CHEMLIST, CSChem, DETHERM\*, GMELIN\*, HODOC\*, IFICDB,  
 IFIPAT, IFIUDb, SPECINFO, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*, NDSL\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Conference; Journal; Patent  
 RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent);  
 USES (Uses); NORL (No role in record)  
 RLD.P Roles for non-specific derivatives from patents: PREP (Preparation)  
 RL.NP Roles from non-patents: ANST (Analytical study); FORM (Formation,  
 nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties);  
 RACT (Reactant or reagent); USES (Uses); NORL (No role in record)  
 RLD.NP Roles for non-specific derivatives from non-patents: PREP  
 (Preparation); USES (Uses)

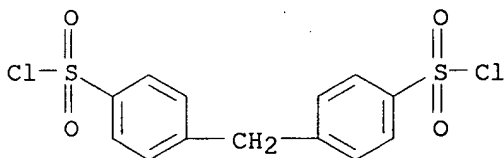


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

140 REFERENCES IN FILE CA (1907 TO DATE)

5 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
140 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
17 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 12 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 3119-64-0 REGISTRY  
CN Benzenesulfonyl chloride, 4,4'-methylenebis- (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Benzenesulfonyl chloride, 4,4'-methylenedi- (6CI, 7CI, 8CI)  
OTHER NAMES:  
CN 4,4'-Methylenebis(benzenesulfonyl chloride)  
CN Diphenylmethane-4,4'-disulfonyl chloride  
CN Diphenylmethane-p,p'-disulfonyl chloride  
CN p,p'-Methylenebis(benzenesulfonyl chloride)  
FS 3D CONCORD  
MF C13 H10 Cl2 O4 S2  
CI COM  
LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CSCHEM,  
IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPATFULL  
(\*File contains numerically searchable property data)  
DT.CA Caplus document type: Conference; Journal; Patent  
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent);  
USES (Uses); NORL (No role in record)  
RL.NP Roles from non-patents: ANST (Analytical study); PREP (Preparation);  
PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES  
(Uses); NORL (No role in record)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

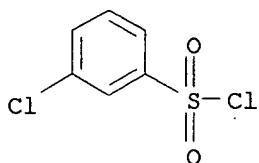
52 REFERENCES IN FILE CA (1907 TO DATE)  
52 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 13 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 2888-06-4 REGISTRY  
CN Benzenesulfonyl chloride, 3-chloro- (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Benzenesulfonyl chloride, m-chloro- (6CI, 7CI, 8CI)  
OTHER NAMES:  
CN 3-Chlorobenzenesulfonyl chloride  
CN 3-Chlorophenylsulfonyl chloride  
CN m-Chlorobenzenesulfonyl chloride  
FS 3D CONCORD  
MF C6 H4 Cl2 O2 S  
LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST,  
CSCHEM, IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPAT2, USPATFULL  
(\*File contains numerically searchable property data)

## Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

DT.CA CAPLUS document type: Conference; Journal; Patent  
 RL.P Roles from patents: BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation); RACT (Reactant or reagent)  
 RLD.P Roles for non-specific derivatives from patents: PREP (Preparation)  
 RL.NP Roles from non-patents: MSC (Miscellaneous); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); NORL (No role in record)  
 RLD.NP Roles for non-specific derivatives from non-patents: RACT (Reactant or reagent)



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

117 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 118 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 14 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 822-06-0 REGISTRY  
 CN Hexane, 1,6-diisocyanato- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Isocyanic acid, hexamethylene ester (6CI, 8CI)  
 OTHER NAMES:  
 CN 1,6-Diisocyanatohexane  
 CN 1,6-Hexamethylene diisocyanate  
 CN 1,6-Hexylene diisocyanate  
 CN HDI  
 CN Hexamethylene diisocyanate  
 CN Hexane 1,6-diisocyanate  
 CN HMDI  
 CN NSC 11687  
 FS 3D CONCORD  
 DR 57350-77-3, 63525-90-6, 133394-59-9, 66368-96-5, 88357-62-4, 53192-27-1, 243121-01-9, 280144-19-6  
 MF C8 H12 N2 O2  
 CI COM  
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM\*, DIPPR\*, EMBASE, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS\*, SPECINFO, TOXCENTER, ULIDAT, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)



Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

OCN- (CH<sub>2</sub>)<sub>6</sub>-NCO

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

6125 REFERENCES IN FILE CA (1907 TO DATE)  
3161 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
6134 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
179 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 15 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 124-09-4 REGISTRY

CN 1,6-Hexanediamine (7CI, 8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN  $\alpha,\omega$ -Hexanediamine

CN 1,6-Diamino-n-hexane

CN 1,6-Diaminohexane

CN 1,6-Hexylenediamine

CN Hexamethylenediamine

CN Hexylenediamine

CN Hi Perm

CN HMDA

CN NSC 9257

CN V 1

FS 3D CONCORD

MF C6 H16 N2

CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHM, CSNB, DDFU, DETHERM\*, DIPPR\*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, PDLCOM\*, PIRA, PROMT, PS, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB

(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

H<sub>2</sub>N-(CH<sub>2</sub>)<sub>6</sub>-NH<sub>2</sub>

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

7694 REFERENCES IN FILE CA (1907 TO DATE)  
1484 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
7700 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 16 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 124-04-9 REGISTRY

CN Hexanedioic acid (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Adipic acid (8CI)

OTHER NAMES:

CN 1,4-Butanedicarboxylic acid

CN 1,6-Hexanedioic acid

CN Acifloctin

CN Acinetten

CN Adilactetten

CN Asapic

CN E 355

CN Inipol DS

CN NSC 7622

CN NSC 87836

FS 3D CONCORD

MF C6 H10 O4

CI COM

LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU,

DETERM\*, DIPPR\*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM\*, PIRA, PROMT, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>4</sub>-CO<sub>2</sub>H

**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

12441 REFERENCES IN FILE CA (1907 TO DATE)  
 2693 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 12453 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 12 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 17 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 120-61-6 REGISTRY

CN 1,4-Benzenedicarboxylic acid, dimethyl ester (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Terephthalic acid, dimethyl ester (6CI, 7CI, 8CI)

OTHER NAMES:

CN Dimethyl 1,4-benzenedicarboxylate

CN Dimethyl p-benzenedicarboxylate

CN Dimethyl p-phthalate

CN Dimethyl terephthalate

CN DMT

CN Methyl 4-(carboxymethoxy)benzoate

CN Methyl p-(methoxycarbonyl)benzoate

CN NSC 3503

FS 3D CONCORD

DR 63143-14-6, 202644-54-0

MF C10 H10 O4

CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DETHERM\*, DIPPR\*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM\*, PIRA, PROMT, RTECS\*, SPECINFO, TOXCENTER, ULIDAT, USPAT2, USPATFULL, VTB

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

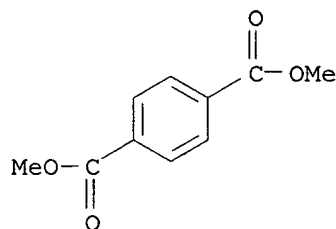
DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3204 REFERENCES IN FILE CA (1907 TO DATE)  
420 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
3207 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
194 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 18 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 111-50-2 REGISTRY

CN Hexanedioyl dichloride (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Adipoyl chloride (6CI, 8CI)

OTHER NAMES:

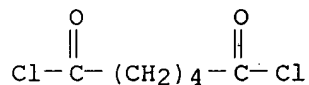
CN 1,4-Bis(chlorocarbonyl)butane

CN Adipic acid dichloride

CN Adipoyl dichloride

CN Adipyl chloride

CN Adipyl dichloride  
CN Hexanedioic acid dichloride  
CN Hexanedioic dichloride  
FS 3D CONCORD  
MF C6 H8 Cl2 O2  
CI COM  
LC STN Files: AGRICOLA, BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, GMELIN\*, HODOC\*, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, PIRA, PS, SPECINFO, TOXCENTER, USPAT2, USPATFULL  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)  
DT.CA Caplus document type: Conference; Journal; Patent; Report  
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)  
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); RACT (Reactant or reagent); USES (Uses)  
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); MSC (Miscellaneous); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)  
RLD.NP Roles for non-specific derivatives from non-patents: BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1079 REFERENCES IN FILE CA (1907 TO DATE)  
80 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
1080 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
61 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 19 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 108-31-6 REGISTRY  
CN 2,5-Furandione (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Maleic anhydride (8CI)  
OTHER NAMES:  
CN BM 10  
CN cis-Butenedioic anhydride  
CN Crystal Man  
CN Crystal Man AB  
CN Dihydro-2,5-dioxofuran  
CN Maleic acid anhydride  
CN Nourymix MA 901  
CN NSC 137651

CN NSC 137652  
CN NSC 137653  
CN NSC 9568  
CN Toxicologic anhydride  
FS 3D CONCORD  
DR 184288-31-1  
MF C4 H2 O3  
CI COM  
LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM\*, DIPPR\*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MRCK\*, MSDS-OHS, NIOSHTIC, PDLCOM\*, PIRA, PROMT, PS, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, USPAT2, USPATFULL, VTB  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

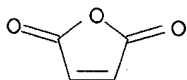
DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

30437 REFERENCES IN FILE CA (1907 TO DATE)  
13231 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
30469 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
13 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 20 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 107-21-1 REGISTRY  
CN 1,2-Ethanediol (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:

CN Ethylene glycol (8CI)  
 CN Glycol (6CI, 7CI)  
 OTHER NAMES:  
 CN 1,2-Dihydroxyethane  
 CN 1,2-Ethylene glycol  
 CN 146AR  
 CN 2-Hydroxyethanol  
 CN Dowtherm SR 1  
 CN Ethylene alcohol  
 CN Ethylene dihydrate  
 CN Fridex  
 CN Glycol alcohol  
 CN Macrogol 400 BPC  
 CN MEG 100  
 CN Monoethylene glycol  
 CN Norkool  
 CN NSC 93876  
 CN Ramp  
 CN Tescol  
 CN Ucar 17  
 CN Union Carbide XL 54 Type I De-icing Fluid  
 CN Zerex  
 FS 3D CONCORD  
 DR 37221-95-7, 71767-64-1  
 MF C2 H6 O2  
 CI COM  
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM\*, DIOGENES, DIPPR\*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, PDLCOM\*, PIRA, PROMT, PS, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VETU, VTB  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)  
 DT.CA Cplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report  
 RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)  
 RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)  
 RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)  
 RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or

reagent); USES (Uses)

HO-CH<sub>2</sub>-CH<sub>2</sub>-OH

**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

40796 REFERENCES IN FILE CA (1907 TO DATE)  
3668 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
40844 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 21 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 107-15-3 REGISTRY

CN 1,2-Ethanediamine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Ethylenediamine (8CI)

OTHER NAMES:

CN (2-Aminoethyl)amine

CN  $\alpha,\omega$ -Ethanediamine

CN  $\beta$ -Aminoethylamine

CN 1,2-Diaminoethane

CN 1,2-Ethylenediamine

CN 1,4-Diazabutane

CN Dimethylenediamine

CN Edamine

FS 3D CONCORD

DR 8030-24-8, 85404-18-8

MF C2 H8 N2

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM\*, DIOGENES, DIPPR\*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, PDLCOM\*, PIRA, PROMT, PS, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VTB

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC



(Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses);  
NORL (No role in record)  
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

H<sub>2</sub>N-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>

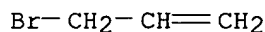
**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

23180 REFERENCES IN FILE CA (1907 TO DATE)  
3847 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
23217 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
8 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 22 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 106-95-6 REGISTRY  
CN 1-Propene, 3-bromo- (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Propene, 3-bromo- (8CI)  
OTHER NAMES:  
CN 1-Bromo-2-propene  
CN 2-Propenyl bromide  
CN 3-Bromo-1-propene  
CN 3-Bromopropene  
CN 3-Bromopropylene  
CN 37: PN: WO03037338 PAGE: 58 claimed sequence  
CN Allyl bromide  
CN NSC 7596  
FS 3D CONCORD  
MF C3 H5 Br  
CI COM  
LC STN Files: ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSChem, CSNB, DETHERM\*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, PROMT, PS, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, ULIDAT, USPAT2, USPATFULL  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)  
DT.CA Caplus document type: Conference; Dissertation; Journal; Patent; Report  
RL.P Roles from patents: BIOL (Biological study); CMBI (Combinatorial study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)  
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)  
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses);

NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

12432 REFERENCES IN FILE CA (1907 TO DATE)  
186 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
12454 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
7 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 23 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 100-52-7 REGISTRY

CN Benzaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN Artificial Almond Oil

CN Benzaldehyde EFC

CN Benzenecarbonal

CN Benzenecarboxaldehyde

CN Benzoic acid aldehyde

CN Benzoic aldehyde

CN NSC 7917

CN Phenylformaldehyde

CN Phenylmethanal

FS 3D CONCORD

MF C7 H6 O

CI COM

LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM\*, DIPPR\*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM\*, PIRA, PROMT, PS, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VTB

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report

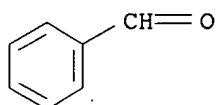
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative);

MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

48586 REFERENCES IN FILE CA (1907 TO DATE)  
709 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
48713 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 24 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 100-51-6 REGISTRY

CN Benzenemethanol (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzyl alcohol (8CI)

OTHER NAMES:

CN (Hydroxymethyl)benzene

CN  $\alpha$ -Hydroxytoluene

CN  $\alpha$ -Toluenol

CN Benzenecarbinol

CN Benzylic alcohol

CN NSC 8044

CN Phenylcarbinol

CN Phenylmethanol

CN Phenylmethyl alcohol

CN Sunmorl BK 20

FS 3D CONCORD

DR 1336-27-2, 185532-71-2

MF C7 H8 O

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM\*, DIOGENES, DIPPR\*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM\*, PIRA, PROMT, PS, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VTB

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*, WHO

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Conference; Dissertation; Journal; Patent; Preprint; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study);

CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

HO-CH<sub>2</sub>-Ph

**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

20456 REFERENCES IN FILE CA (1907 TO DATE)  
410 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
20496 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
7 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 25 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 100-39-0 REGISTRY

CN Benzene, (bromomethyl)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Toluene,  $\alpha$ -bromo- (8CI)

OTHER NAMES:

CN (Bromomethyl)benzene

CN (Bromophenyl)methane

CN  $\alpha$ -Bromotoluene

CN  $\omega$ -Bromotoluene

CN Benzyl bromide

CN NSC 8041

CN Phenylmethyl bromide

FS 3D CONCORD

MF C7 H7 Br

CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DETHERM\*, EMBASE, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK\*, NIOSHTIC, PDLCOM\*, PIRA, PROMT, PS, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, ULIDAT, USPAT2, USPATFULL  
(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Conference; Dissertation; Journal; Patent; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); OCCU

(Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

Ph-CH<sub>2</sub>-Br

**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

12017 REFERENCES IN FILE CA (1907 TO DATE)  
94 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
12044 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 26 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 100-21-0 REGISTRY

CN 1,4-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Terephthalic acid (7CI, 8CI)

OTHER NAMES:

CN 1,4-Dicarboxybenzene

CN 4-Carboxybenzoic acid

CN NSC 36973

CN p-Benzenedicarboxylic acid

CN p-Carboxybenzoic acid

CN p-Dicarboxybenzene

CN p-Phthalic acid

CN TPA

CN WR 16262

FS 3D CONCORD

DR 211863-90-0, 211863-92-2

MF C8 H6 O4

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHM, CSNB, DDFU, DETHERM\*, DIOGENES, DIPPR\*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, NAPRALERT, NIOSHTIC, PDLCOM\*, PIRA, PROMT, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB  
(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

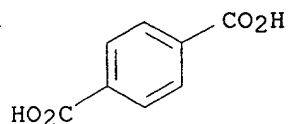
DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

8519 REFERENCES IN FILE CA (1907 TO DATE)  
 1555 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 8530 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 27 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 98-80-6 REGISTRY  
 CN Boronic acid, phenyl- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Benzenboronic acid (6CI, 8CI)  
 OTHER NAMES:  
 CN Dihydroxyphenylborane  
 CN NSC 66487  
 CN Phenylboric acid  
 CN Phenylboronic acid  
 CN Phenylldihydroxyborane  
 MF C6 H7 B O2  
 CI COM  
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHM, EMBASE, GMELIN\*, HODOC\*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK\*, PS, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Conference; Dissertation; Journal; Patent; Preprint; Report

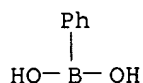
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CMBI (Combinatorial study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

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RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

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 97 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 3580 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 70 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 28 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 75-44-5 REGISTRY

CN Carbonic dichloride (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Phosgene (8CI)

OTHER NAMES:

CN Carbon dichloride oxide

CN Carbon oxychloride

CN Carbonyl chloride

CN Carbonyl dichloride

CN CG

CN Chloroformyl chloride

CN Dichloroformaldehyde

CN Phosgen

FS 3D CONCORD

MF C Cl2 O

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM\*, DIPPR\*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, PDLCOM\*, PIRA, PROMT, PS, RTECS\*, SPECINFO, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

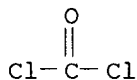
DT.CA CPlus document type: Book; Conference; Dissertation; Journal; Patent; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

6742 REFERENCES IN FILE CA (1907 TO DATE)  
225 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
6744 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)



Cyclocl trim + text

Crane 09/339,818

June 22, 2004

(5/8)

FILE 'HCAPLUS' ENTERED AT 16:23:23 ON 22 JUN 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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FILE COVERS 1907 - 22 Jun 2004 VOL 140 ISS 26  
FILE LAST UPDATED: 21 Jun 2004 (20040621/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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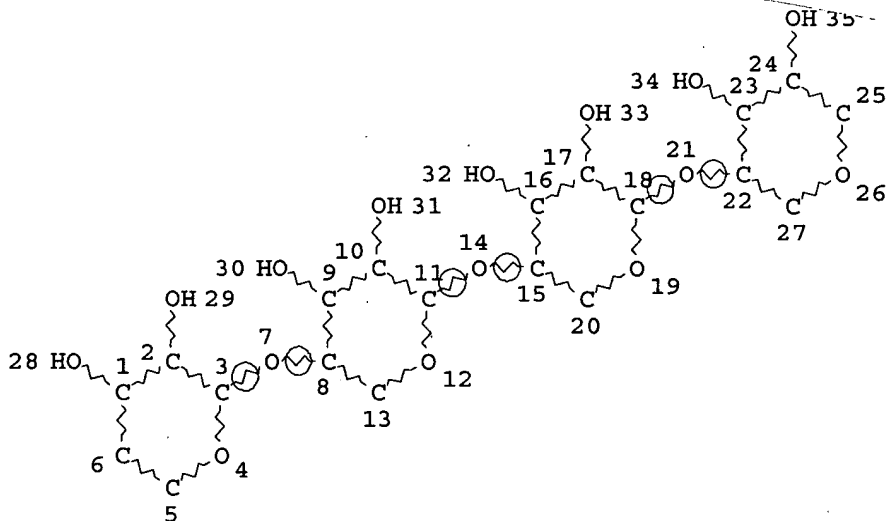
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L11 29 SEA FILE=HCAPLUS ABB=  
L12 9 SEA FILE=HCAPLUS ABB=  
L14 26080 SEA FILE=REGISTRY AB/  
L15 88 SEA FILE=HCAPLUS ABB  
L16 2266 SEA FILE=HCAPLUS ABF  
L17 22 SEA FILE=HCAPLUS AB/  
L20 22 SEA FILE=HCAPLUS AB/  
L24 STR

118

NT/CT (L) ?POLY?  
NT/CT (L) LINE?

IN"

Y?



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

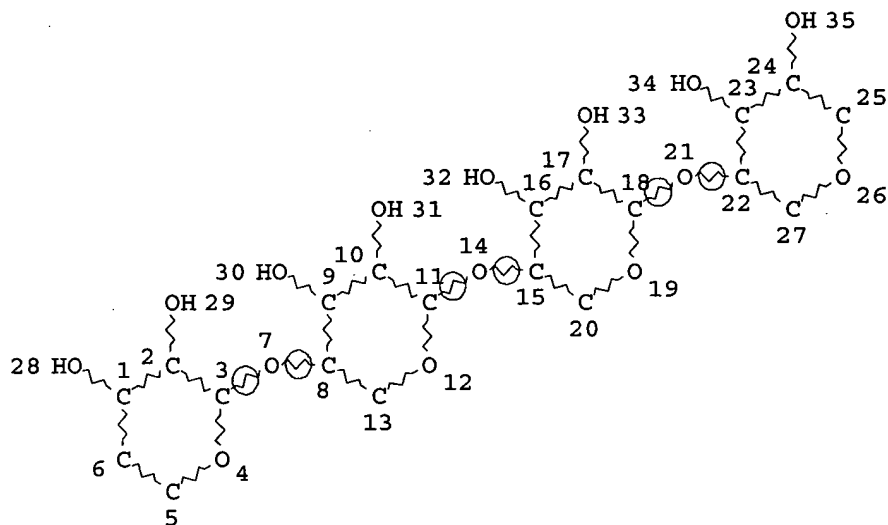
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NUMBER OF NODES IS 35

## STEREO ATTRIBUTES: NONE

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L28 26208 SEA FILE=REGISTRY ABB=ON PLU=ON L14 OR L26  
L33 13 SEA FILE=HCAPLUS ABB=ON PLU=ON L28(L) (LINEAR(3A)?POLYM?)  
L34 22 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 OR L33

=&gt; d que l43

L24 STR



## NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

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## STEREO ATTRIBUTES: NONE

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L36 1071 SEA FILE=REGISTRY ABB=ON PLU=ON L26 AND PMS/CI  
L37 STR

~~N~~~~X~~G1~~X~~~~N~~  
1 2 3

REP G1=(1-20) A

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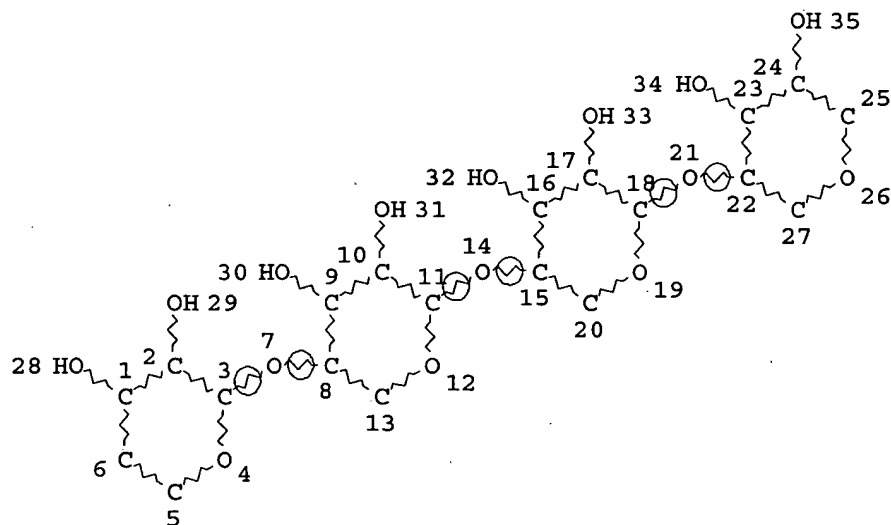
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L47 89 SEA FILE=REGISTRY ABB=ON PLU=ON "CYCLODEXTRIN" AND "COPOLYMER"

L49 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L47(L) LINE?

=> d que 154

L14 26080 SEA FILE=REGISTRY ABB=ON PLU=ON "CYCLODEXTRIN"  
L24 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 35

STEREO ATTRIBUTES: NONE

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L28 26208 SEA FILE=REGISTRY ABB=ON PLU=ON L14 OR L26

L50 STR

S~S

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NODE ATTRIBUTES:

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 2

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L53 10 SEA FILE=REGISTRY ABB=ON PLU=ON L52 AND PMS/CI  
L54 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L53

=> s l34 or l43 or l49 or l54  
L57 27 L34 OR L43 OR L49 OR L54

=> d l57 ibib ab hitind hitstr 1-27

L57 ANSWER 1 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2004:220231 HCAPLUS  
DOCUMENT NUMBER: 140:276173  
TITLE: Cyclodextrin-based polymers for therapeutics delivery  
INVENTOR(S): Cheng, Jianjun; Davis, Mark E.; Khin, Kay T.  
PATENT ASSIGNEE(S): Insert Therapeutics, Inc., USA  
SOURCE: PCT Int. Appl., 159 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004022099	A2	20040318	WO 2003-US27588	20030904
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004077595	A1	20040422	US 2003-656838	20030905
PRIORITY APPLN. INFO.:			US 2002-408855P	P 20020906
			US 2002-422830P	P 20021031
			US 2003-451998P	P 20030304
AB The present invention relates to novel compns. of therapeutic cyclodextrin-containing polymeric compds. designed as a carrier for delivery of small mol. therapeutics and pharmaceutical compns. thereof. These cyclodextrin-containing polymers improve drug stability and solubility, and reduce toxicity of the small mol. therapeutics when used in vivo. Furthermore, by selecting from a variety of linker groups and targeting ligands the polymers present methods for controlled delivery of the therapeutic agents. The invention also relates to methods of treating subjects with the therapeutic compns. described herein. The invention further relates to methods for conducting pharmaceutical business comprising manufacturing, licensing, or distribution kits containing or relating to the polymeric compds. described herein.				
IC	ICM A61K047-00			
CC	63-6 (Pharmaceuticals)			
	Section cross-reference(s): 35			
IT	108-30-5P, Succinic anhydride, preparation 16352-26-4P 29390-66-7P,			

6-Iodo  $\beta$ -Cyclodextrin 67217-55-4P,  $\beta$ -Cyclodextrin 6-tosylate  
73499-21-5P 73667-73-9P 76700-72-6P 85419-94-9P 101652-40-8P  
120527-66-4DP, cyclodextrinamide derivs., camptothecin conjugates  
153445-05-7P 204133-72-2P 362496-95-5P 614744-04-6P 614744-05-7P  
614744-06-8P 614744-08-0P 614744-10-4P 672333-40-3P 672333-43-6P  
672333-45-8P 672333-47-0P 672333-50-5P 672333-51-6P 672333-52-7P  
672333-53-8P 672333-54-9P 672333-55-0P 672333-57-2P  
672333-60-7P 672333-61-8P 672333-64-1P  
672333-65-2P 672333-69-6P 672333-70-9P 672333-72-1P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(preparation of cyclodextrin-based polymer carriers for therapeutics  
delivery)

IT 1397-89-3DP, Amphotericin B, conjugates with ethoxylated polycyclodextrins  
9002-98-6DP, cyclodextrin derivs., camptothecin conjugates 25513-46-6DP,  
cyclodextrinamide derivs., camptothecin conjugates 29390-67-8DP,  
reaction products with polyphosphoesters, camptothecin conjugates  
106973-21-1DP, cyclodextrinamide derivs., camptothecin conjugates  
176669-13-9DP, reaction products with polyglutamic acid, cyclodextrinamide  
derivs. 204133-36-8DP, conjugates with ethoxylated polycyclodextrins  
215604-12-9DP, conjugates with ethoxylated polycyclodextrins  
362496-97-7DP, reaction products with ethylene-maleic anhydride polymers,  
cyclodextrinamide derivs. 672333-53-8DP, conjugates with ethoxylated  
polycyclodextrins 672333-55-0DP, conjugates with glycine camptothecin  
ester 672333-57-2DP, conjugates with glycine camptothecin ester  
672333-60-7DP, conjugates with glycine camptothecin ester  
672333-61-8DP, conjugates with glycine camptothecin ester 672333-62-9P  
672333-65-2DP, amides with N-(3-carboxyl-1-oxopropyl)glycine  
camptothecin ester 672333-66-3P 672333-67-4P 672333-69-6DP, polymers  
with cyclodextrinamide derivs., camptothecin conjugates 672333-71-0P  
672913-15-4DP, amides with glycine camptothecin ester and NHS folate  
derivative 672932-77-3DP, camptothecin conjugates 672932-77-3P  
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological  
study); PREP (Preparation); USES (Uses)

(preparation of cyclodextrin-based polymer carriers for therapeutics  
delivery)

IT 672333-60-7P 672333-64-1P 672333-65-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(preparation of cyclodextrin-based polymer carriers for therapeutics  
delivery)

RN 672333-60-7 HCAPLUS

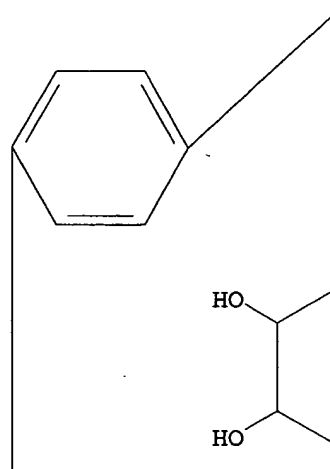
CN L-Cystine, polymer with  $\beta$ -cyclodextrin cyclic 6A,6D-[1,1'-biphenyl]-  
4,4'-disulfonate (9CI) (CA INDEX NAME)

CM 1

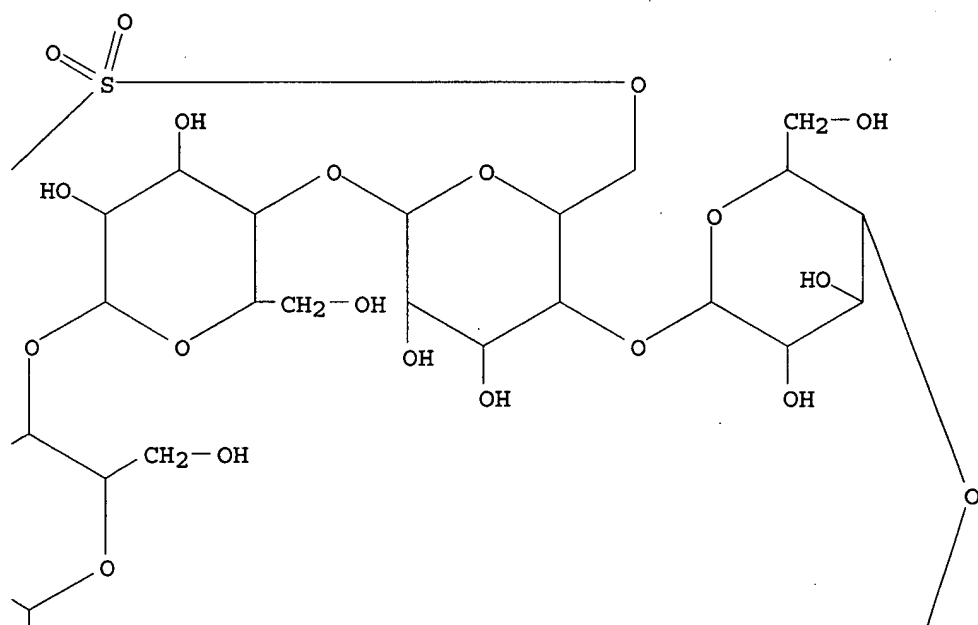
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CMF C54 H76 O39 S2

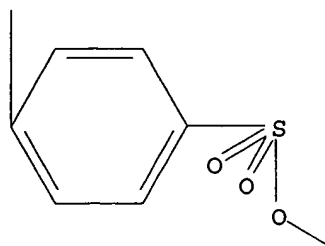
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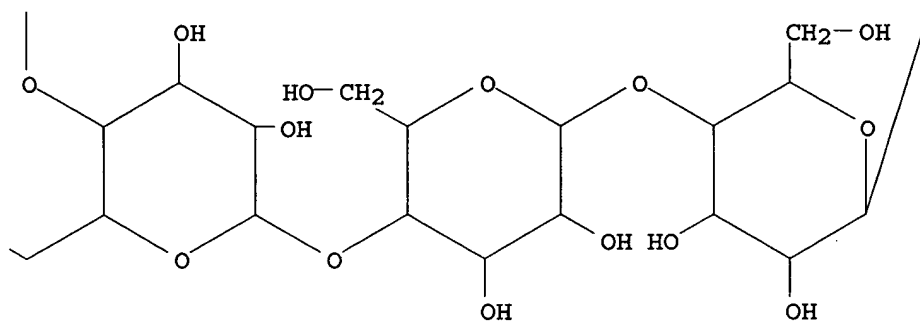
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PAGE 2-A



PAGE 2-B

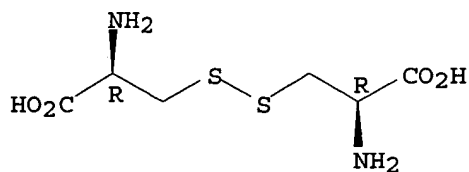


CM 2

CRN 56-89-3

CMF C6 H12 N2 O4 S2

Absolute stereochemistry.



RN 672333-64-1 HCAPLUS

CN L-Cystine, N,N'-bis[(1,1-dimethylethoxy)carbonyl]-, polymer with  
6A,6D-bis-S-(2-aminoethyl)-6A,6D-dithio-β-cyclodextrin (9CI) (CA  
INDEX NAME)

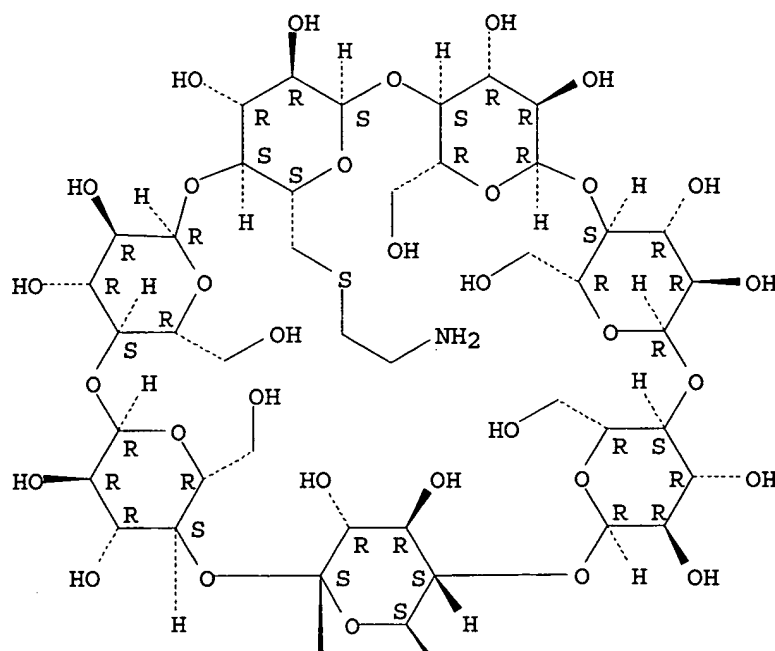
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CRN 101652-40-8

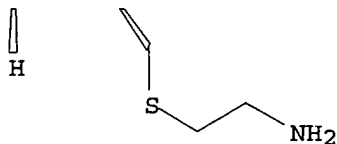
CMF C46 H80 N2 O33 S2

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

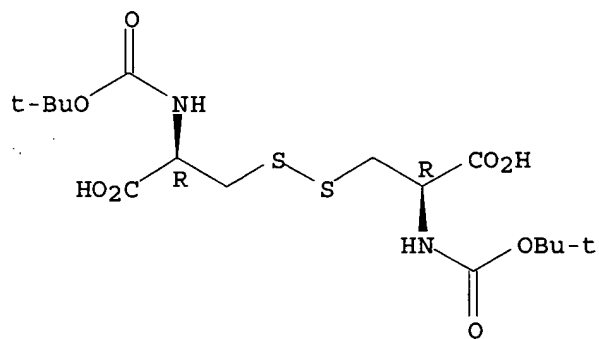


CM 2

CRN 10389-65-8

CMF C16 H28 N2 O8 S2

Absolute stereochemistry.





RN 672333-65-2 HCAPLUS

CN L-Cystine, polymer with 6A,6D-bis-S-(2-aminoethyl)-6A,6D-dithio- $\beta$ -cyclodextrin (9CI) (CA INDEX NAME)

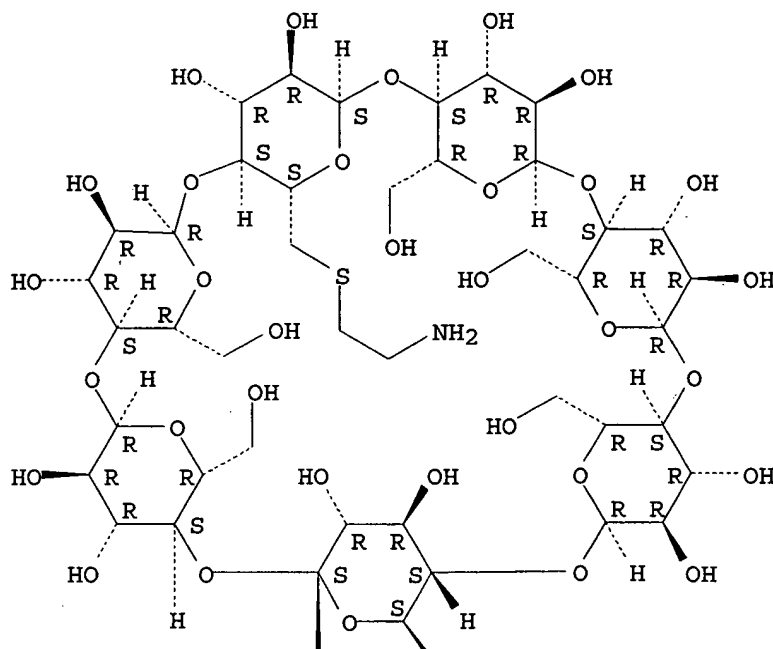
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CRN 101652-40-8

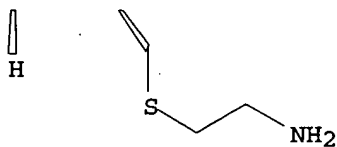
CMF C46 H80 N2 O33 S2

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

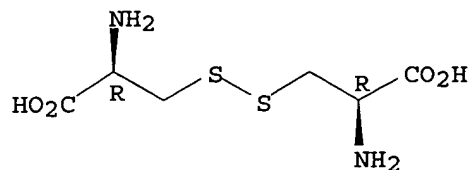


CM 2

CRN 56-89-3

CMF C6 H12 N2 O4 S2

Absolute stereochemistry.



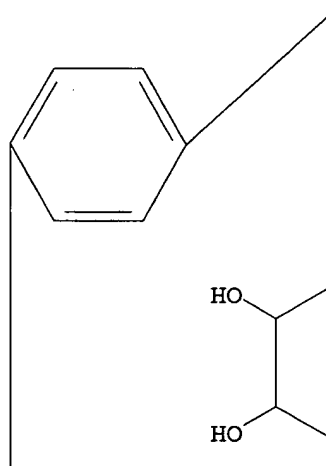
IT 672333-60-7DP, conjugates with glycine camptothecin ester  
 672333-65-2DP, amides with N-(3-carboxyl-1-oxopropyl)glycine  
 camptothecin ester  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological  
 study); PREP (Preparation); USES (Uses)  
 (preparation of cyclodextrin-based polymer carriers for therapeutics  
 delivery)  
 RN 672333-60-7 HCAPLUS  
 CN L-Cystine, polymer with  $\beta$ -cyclodextrin cyclic 6A,6D-[1,1'-biphenyl]-  
 4,4'-disulfonate (9CI) (CA INDEX NAME)

CM 1

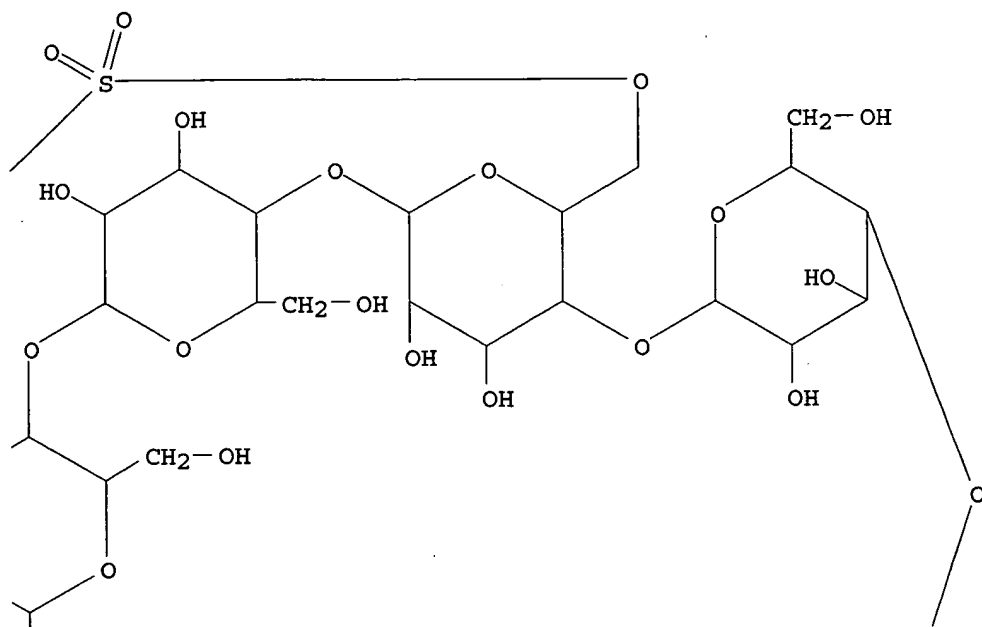
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CMF C54 H76 O39 S2

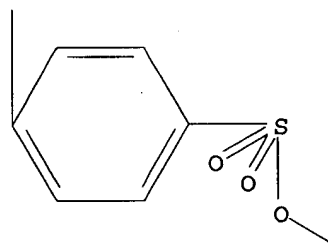
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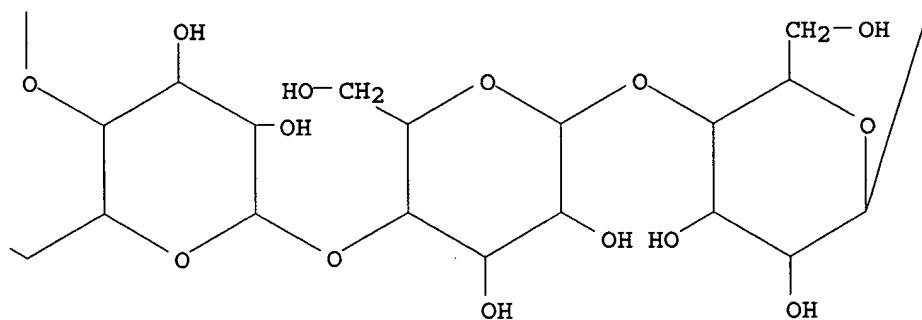
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PAGE 2-A



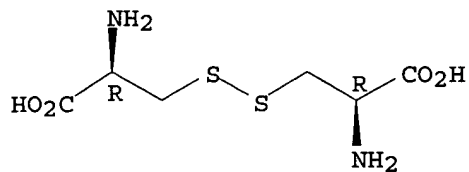
PAGE 2-B



CM 2

CRN 56-89-3  
CMF C6 H12 N2 O4 S2

Absolute stereochemistry.



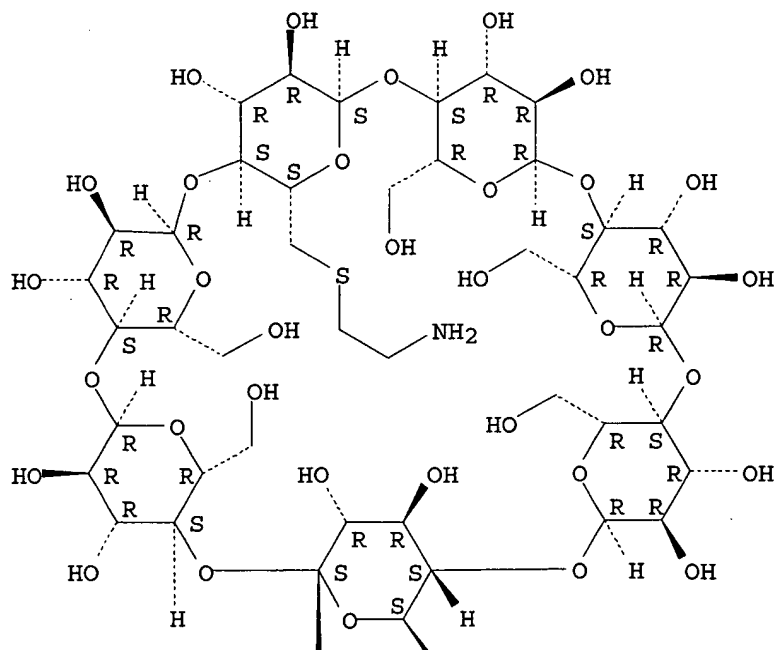
RN 672333-65-2 HCAPLUS  
CN L-Cystine, polymer with 6A,6D-bis-S-(2-aminoethyl)-6A,6D-dithio- $\beta$ -cyclodextrin (9CI) (CA INDEX NAME)

CM 1

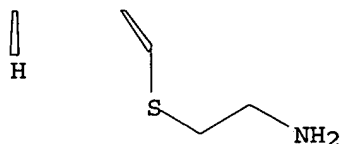
CRN 101652-40-8  
CMF C46 H80 N2 O33 S2

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

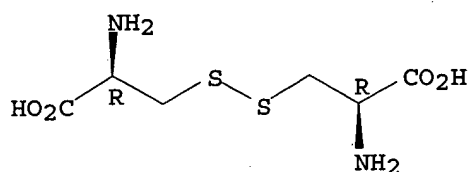


CM 2

CRN 56-89-3

CMF C6 H12 N2 O4 S2

Absolute stereochemistry.



L57 ANSWER 2 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:913127 HCAPLUS

DOCUMENT NUMBER: 139:395622

TITLE: Polyunsaturated linear aldehydes and their derivatives  
with antiradical and anti-tumoral activity

INVENTOR(S): Stradi, Riccardo; Bertelli, Aldo; Pini, Elena

PATENT ASSIGNEE(S): Universita' Degli Studi Di Milano, Italy

SOURCE: PCT Int. Appl., 23 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003095403	A1	20031120	WO 2003-EP4720	20030506
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: IT 2002-MI960 A 20020507

OTHER SOURCE(S): MARPAT 139:395622

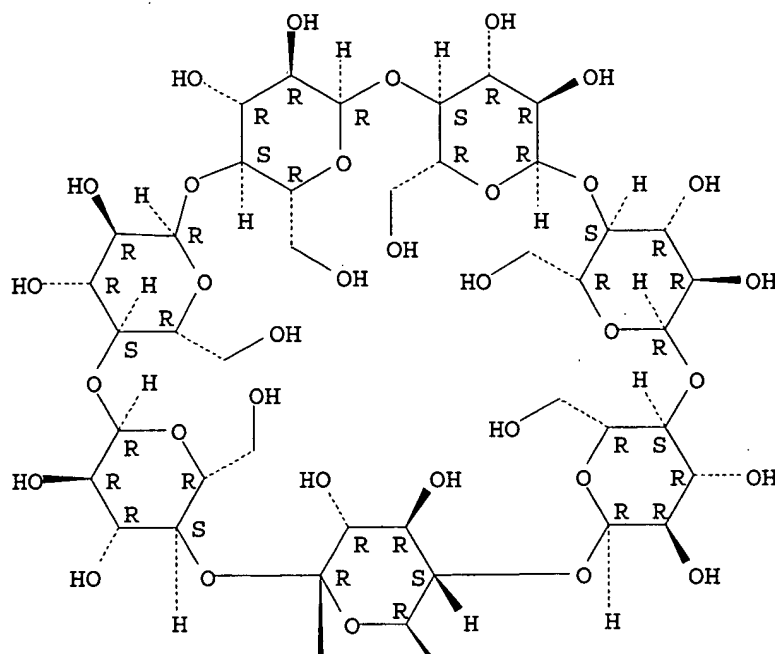
AB Polyunsatd. linear aldehydes and their derivs., prepared synthetically with antioxidant, antitumoral, and anti-inflammatory activity, and which are useful in the prevention and treatment of cardiovascular, inflammatory, atherosclerotic, proliferative cell and tumor damage, and the prevention

of alterations caused by ageing, are described and formulations containing them are presented.

- IC ICM C07C033-02  
ICS C07C069-24; C07C047-21; A61K031-22; A61K031-11; A61K031-045;  
A61K007-00; A61P029-00; A61P035-00; A61P039-06
- CC 23-14 (Aliphatic Compounds)  
Section cross-reference(s): 1, 62, 63
- IT 64-19-7, Acetic acid, reactions 75-07-0, Acetaldehyde, reactions  
112-67-4, Palmitoyl chloride 4170-30-3, Crotonaldehyde 7585-39-9  
,  $\beta$ -Cyclodextrin 10016-20-3,  $\alpha$ -Cyclodextrin  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(in the preparation of **polyunsatd. linear** aldehydes and  
their derivs. with antiradical and anti-tumoral activity)
- IT 17609-31-3P, 2,4,6-Octatrienal 28849-19-6P 40650-87-1P,  
2,4,6,8-Decatetraenal 53193-45-6P, 2,4,6,8,10-Dodecapentaenal  
64512-29-4P, 2,4,6,8,10,12,14-Hexadecaheptaenal 73882-14-1P,  
2,4,6,8,10-Dodecapentaen-1-ol 80466-34-8P, 2,4-Hexadienal 90925-13-6P,  
2,4,6,8-Decatetraen-1-ol 625111-99-1P, 2,4,6,8,10,12-Tetradecahexaen-1-  
ol 625112-00-7P, 2,4,6,8,10,12,14-Hexadecaheptaen-1-ol 625112-01-8P  
625112-02-9P 625112-03-0P 625112-04-1P 625112-05-2P  
625112-06-3P 625112-07-4P  
RL: COS (Cosmetic use); PAC (Pharmacological activity); SPN (Synthetic  
preparation); THU (Therapeutic use); BIOL (Biological study); PREP  
(Preparation); USES (Uses)  
(**polyunsatd. linear** aldehydes and their derivs.  
with antiradical and anti-tumoral activity)
- IT 7585-39-9,  $\beta$ -Cyclodextrin 10016-20-3,  
 $\alpha$ -Cyclodextrin  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(in the preparation of **polyunsatd. linear** aldehydes and  
their derivs. with antiradical and anti-tumoral activity)
- RN 7585-39-9 HCAPLUS  
CN  $\beta$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

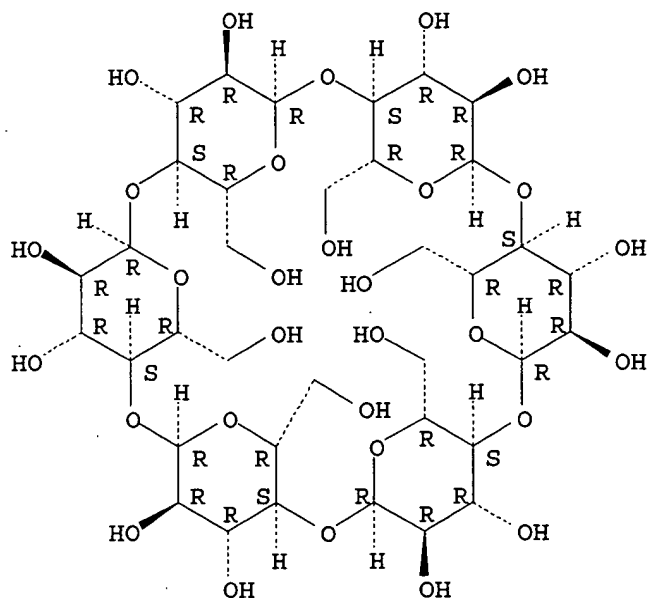


PAGE 2-A



RN 10016-20-3 HCAPLUS  
CN  $\alpha$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 625112-02-9P 625112-03-0P

RL: COS (Cosmetic use); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(polyunsatd. linear aldehydes and their derivs.  
with antiradical and anti-tumoral activity)

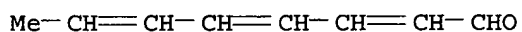
RN 625112-02-9 HCAPLUS

CN  $\alpha$ -Cyclodextrin, compd. with 2,4,6-octatrienal (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 17609-31-3

CMF C8 H10 O



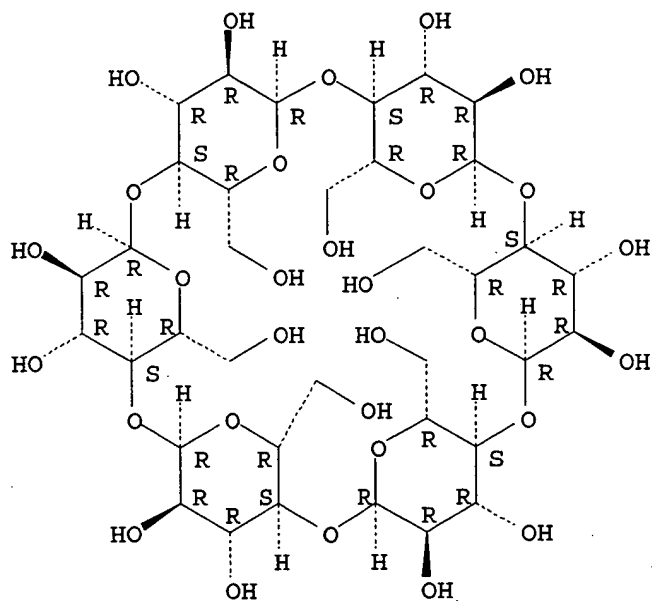
CM 2

CRN 10016-20-3

CMF C36 H60 O30

Absolute stereochemistry.





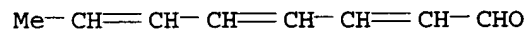
RN 625112-03-0 HCAPLUS

CN  $\beta$ -Cyclodextrin, compd. with 2,4,6-octatrienal (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 17609-31-3

CMF C8 H10 O



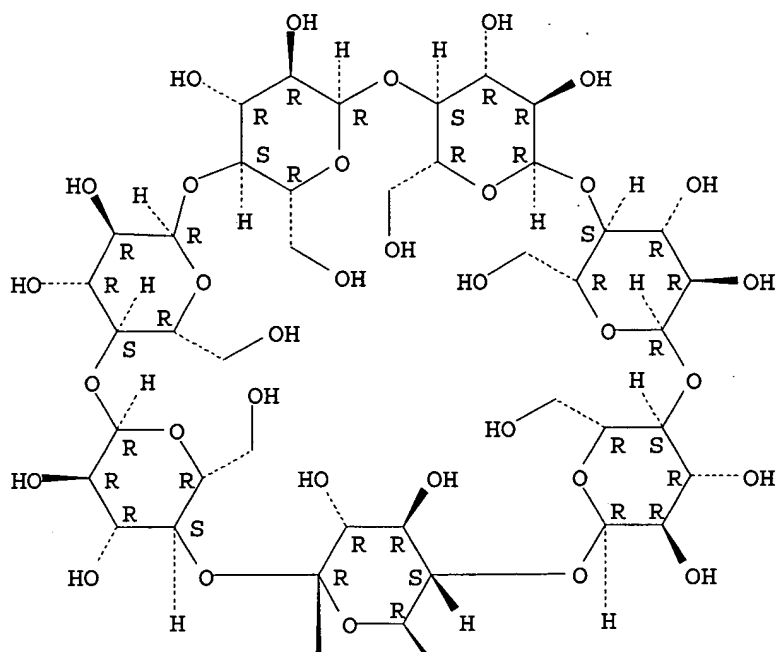
CM 2

CRN 7585-39-9

CMF C42 H70 O35

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 3 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:696944 HCAPLUS

DOCUMENT NUMBER: 139:219362

TITLE: Carbohydrate-modified polymers, compositions and uses related thereto

INVENTOR(S): Bellocq, Nathalie C.; Cheng, Jianjun; Davis, Mark E.; Pun, Suzie Hwang

PATENT ASSIGNEE(S): Insert Therapeutics, Inc., USA

SOURCE: PCT Int. Appl., 60 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003072637	A1	20030904	WO 2003-US5688	20030224
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,  
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,  
TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,  
CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,  
NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
ML, MR, NE, SN, TD, TG

US 2004087024 A1 20040506

US 2003-372723 20030224

PRIORITY APPLN. INFO.:

US 2002-358830P P 20020222

US 2002-417747P P 20021010

AB This application discloses compns. of carbohydrate-modified polymers, such as polyethylenimine modified with cyclodextrin moieties, for carrying drugs and other active agents, such as nucleic acids. Compns. are also disclosed of carbohydrate-modified polymer carriers that release such agents under controlled conditions. The invention also discloses compns. of carbohydrate-modified polymer carriers that are coupled to biorecognition mols. for targeting the delivery of drugs to their site of action.

IC ICM C08G073-04

ICS C08B037-16; A61K047-48; C12N015-87; A61K009-14; C08B037-00

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 33, 35, 44

IT 9002-98-6DP, Aziridine polymer, reaction products with  
6-monotosyl-β-cyclodextrin or tosylgalactose 51885-37-1DP,  
6-O-Tosyl-D-galactose, reaction products with branched or linear  
polyethylenimines 67217-55-4DP, β-Cyclodextrin  
6-monotosylate, reaction products with branched or linear

**polyethylenimines**

RL: IMF (Industrial manufacture); PRP (Properties); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)

(manufacture of carbohydrate-modified **polymers**, compns. and uses  
related thereto)

IT 67217-55-4DP, β-Cyclodextrin 6-monotosylate, reaction  
products with branched or linear **polyethylenimines**

RL: IMF (Industrial manufacture); PRP (Properties); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)

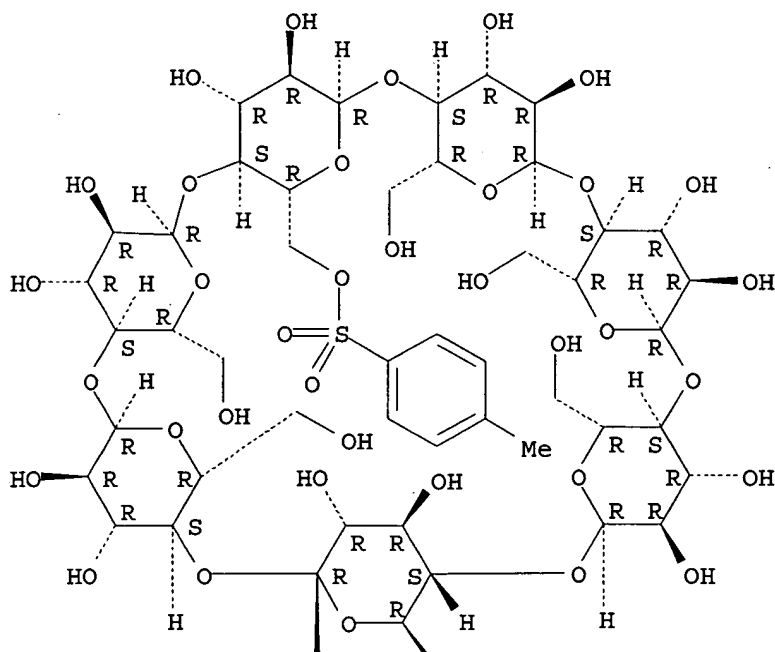
(manufacture of carbohydrate-modified **polymers**, compns. and uses  
related thereto)

RN 67217-55-4 HCAPLUS

CN β-Cyclodextrin, 6A-(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

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PAGE 2-A



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 4 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:666514 HCAPLUS

DOCUMENT NUMBER: 140:169415

TITLE: Linear, cyclodextrin-based polymers for the delivery of broad ranging therapeutics

AUTHOR(S): Cheng, Jianjun; Bellocq, Nathalie; Pun, Suzie Hwang; Khin, Kay T.; Liu, Aijie; Jensen, Gregory S.; Dartt, Christopher B.; Davis, Mark E.

CORPORATE SOURCE: Insert Therapeutics, Inc. Pasadena, CA, 91107, USA  
SOURCE: Polymeric Materials Science and Engineering (2003), 89, 52

CODEN: PMSEDG; ISSN: 0743-0515

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal; (computer optical disk)

LANGUAGE: English

AB Cyclodextrins (CD) are cyclic oligomers of  $\alpha$ -1,4-linked glucopyranose units and capable of forming inclusion complexes with small mols. and sidechains of larger compds. The guest-host properties of CDs have been extensively investigated, and their use as solubilizing agents

for small mol. drugs exploited worldwide. Numerous types of cyclodextrin-containing polymers have been prepared In 1999, some of us reported

the preparation of a completely new type of linear,  $\beta$ -CD-containing polymer and showed that this polycation was capable of delivering plasmid DNA into cultured cells. Since that time, the authors have extended the concept of linear, water-soluble CD-containing polymers to include species that are pos., neutral and neg. charged, and have used these materials to deliver therapeutics of all sizes ranging from small mols. (can be less than 1 nm in size), to oligonucleotides (1-10 nm) and full plasmids (30-200 nm when condensed). This presentation focuses on: (i) the synthetic strategy for the preparation of linear, water-soluble, CD-containing polymers, [ii] the

different

features that have successfully been designed into these materials, and (iii) the results obtained from animal models that demonstrate the successful delivery of all therapeutic size ranges.

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 1.

IT 7585-39-9,  $\beta$ -Cyclodextrin 12619-70-4, Cyclodextrins

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(linear, cyclodextrin-based polymers for delivery of broad ranging therapeutics)

IT 7585-39-9,  $\beta$ -Cyclodextrin 12619-70-4, Cyclodextrins

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

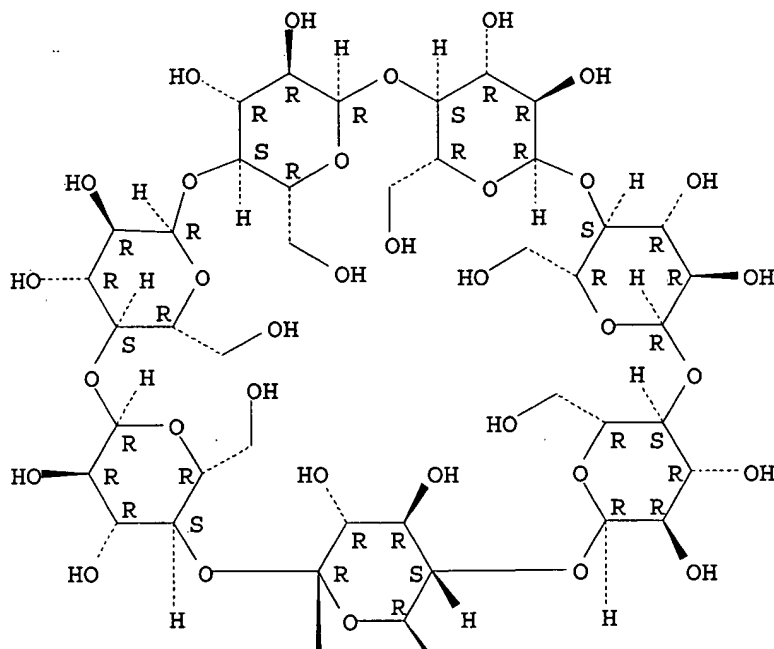
(linear, cyclodextrin-based polymers for delivery of broad ranging therapeutics)

RN 7585-39-9 HCAPLUS

CN  $\beta$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



RN 12619-70-4 HCAPLUS  
CN Cyclodextrin (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 5 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:666072 HCAPLUS

DOCUMENT NUMBER: 139:328131

TITLE: Synthesis of Linear,  $\beta$ -Cyclodextrin-Based Polymers and Their Camptothecin Conjugates

AUTHOR(S): Cheng, Jianjun; Khin, Kay T.; Jensen, Gregory S.; Liu, Aijie; Davis, Mark E.

CORPORATE SOURCE: Insert Therapeutics, Inc., Pasadena, CA, 91107, USA

SOURCE: Bioconjugate Chemistry (2003), 14(5), 1007-1017

CODEN: BCCHES; ISSN: 1043-1802

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB 6A,6D-Bis-(2-amino-2-carboxylethylthio)-6A,6D-dideoxy- $\beta$ -cyclodextrin 1, a diamino acid derivative of  $\beta$ -cyclodextrin, is synthesized and condensed with difunctionalized PEG comonomers to give linear, high mol. weight (Mw over 50 kDa)  $\beta$ -cyclodextrin-based polymers (2-4) with pendant functionality (carboxylate). 2-4 Are all highly soluble in aqueous solns.

(over

200 mg/mL). 20-O-trifluoroglycinylcampthothecin, 5a, and 20-O-trifluoroglycinyglycinyglycinylcampthothecin, 5b, are synthesized and conjugated to 2 to give polymer-campthothecin (CPT) prodrugs. The solubility of CPT is increased by more than three orders of magnitude when it is conjugated to 2. The rates of CPT release from the conjugates HGGG6 (high mol. weight polymer (Mw 97 kDa), glyglygly linker and 6 wt % CPT loading) and HG6 (high MW polymer (Mw 97 kDa), gly linker and 6 wt % CPT loading) in either mouse or human plasma are dramatically accelerated over the rates of pure hydrolysis at pH = 7.4, indicating the presence of enzymic cleavage as a rate-determining step at this pH in the release of the CPT. The pH of aqueous solution has a large effect on hydrolysis rate of CPT from HGGG6 and HG6; the lower the pH, the slower the rate in the range at  $4.1 \leq \text{pH} \leq 13.1$ . The IC<sub>50</sub>'s of polymer 2e, CPT, and the CPT conjugates HG6 and HGGG6 are found to be cell-line dependent with LS174T, HT29, A2780, and PC3 cells using in vitro MTT assays. The parent polymer 2e has very low toxicity to all cultured cells tested.

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 35

IT 614744-05-7DP, campthothecin conjugate derivs. 614744-06-8P

614744-08-0P 614744-10-4P

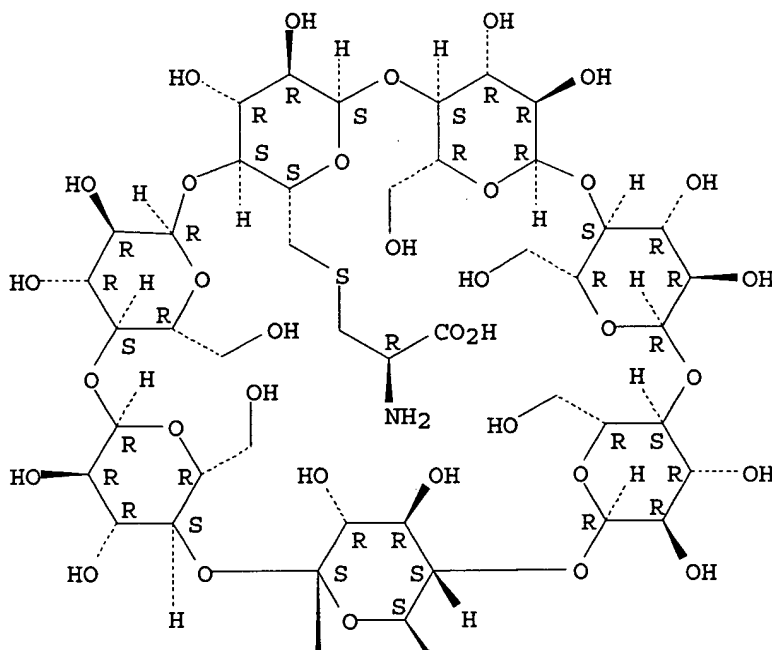
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of linear,  $\beta$ -Cyclodextrin-based

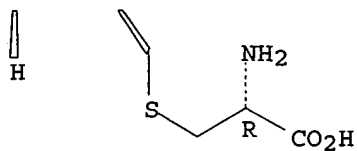
polymers and their camptothecin conjugates)  
 IT 76700-72-6P 204133-74-4P 362496-98-8P 614744-04-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (synthesis of linear,  $\beta$ -Cyclodextrin-based  
 polymers and their camptothecin conjugates)  
 IT 614744-05-7DP, camptothecin conjugate derivs. 614744-06-8P  
 614744-08-0P 614744-10-4P  
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP  
 (Preparation); RACT (Reactant or reagent)  
 (synthesis of linear,  $\beta$ -Cyclodextrin-based  
 polymers and their camptothecin conjugates)  
 RN 614744-05-7 HCAPLUS  
 CN L-Cysteine, S,S'-(6A,6D-dideoxy- $\beta$ -cyclodextrin-6A,6D-diyl)bis-,  
 polymer with  $\alpha$ -[3-[(2,5-dioxo-1-pyrrolidinyl)oxy]-3-oxopropyl]-  
 $\omega$ -[3-[(2,5-dioxo-1-pyrrolidinyl)oxy]-3-oxopropoxy]poly(oxy-1,2-  
 ethanediyl) (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 614744-04-6  
 CMF C48 H80 N2 O37 S2

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



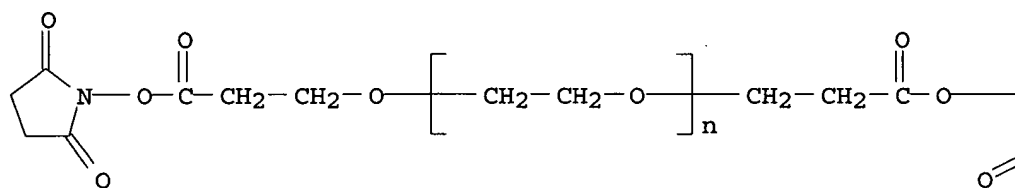
CM 2

CRN 123502-57-8

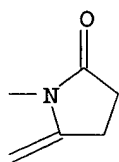
CMF (C2 H4 O)<sub>n</sub> C14 H16 N2 O9

CCI PMS

PAGE 1-A



PAGE 1-B



RN 614744-06-8 HCAPLUS

CN L-Cysteine, S,S'-(6A,6D-dideoxy-β-cyclodextrin-6A,6D-diyl)bis-,  
polymer with α-[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutyl]-  
ω-[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutoxy]poly(oxy-1,2-  
ethanediyl) (9CI) (CA INDEX NAME)

CM 1

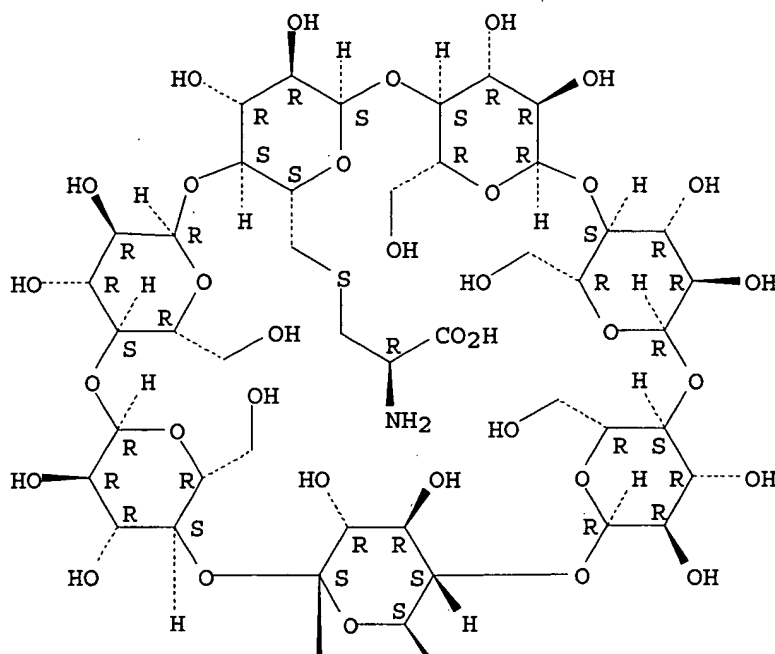
CRN 614744-04-6

CMF C48 H80 N2 O37 S2

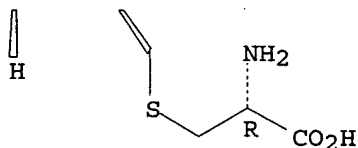
Absolute stereochemistry.



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PAGE 2-A

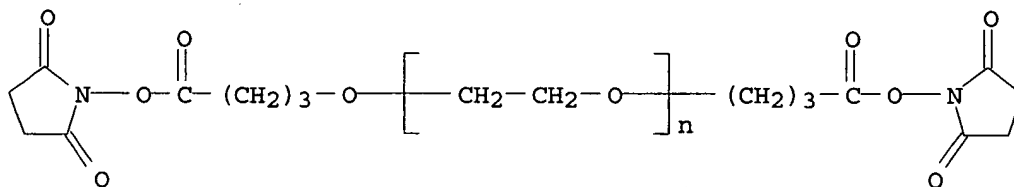


CM 2

CRN 159194-63-5

CMF (C2 H4 O)<sub>n</sub> C16 H20 N2 O9

CCI PMS



RN 614744-08-0 HCAPLUS

CN L-Cysteine, S,S'-(6A,6D-dideoxy-β-cyclodextrin-6A,6D-diyl)bis-,  
 polymer with α-[(1H-benzotriazol-1-yloxy)carbonyl]-ω-[[[(1H-  
 benzotriazol-1-yloxy)carbonyl]oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA

INDEX NAME)

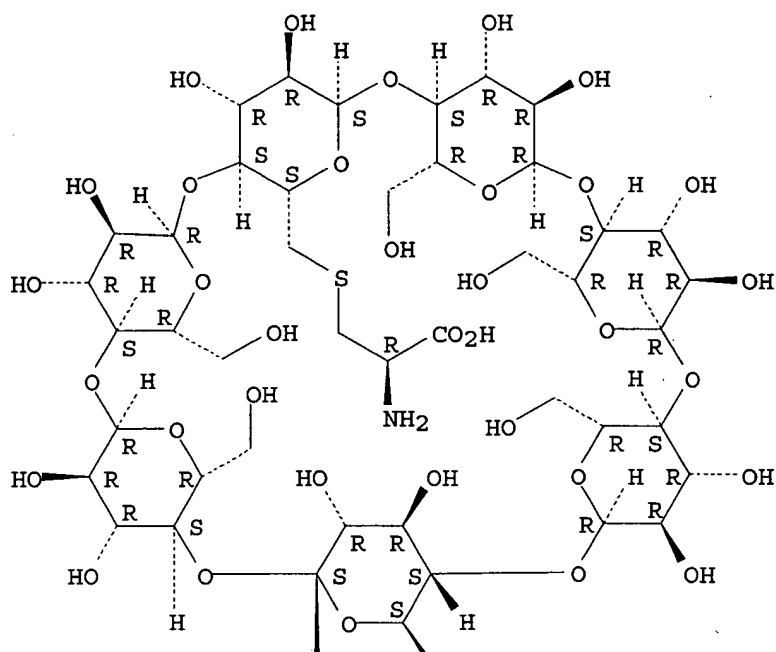
CM 1

CRN 614744-04-6

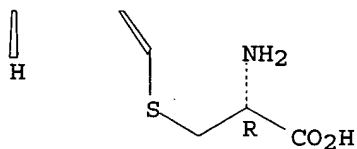
CMF C48 H80 N2 O37 S2

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

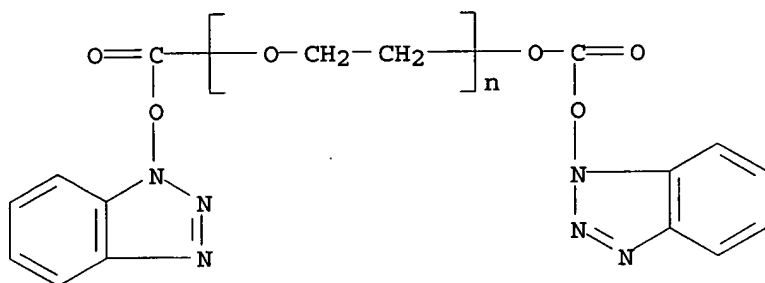


CM 2

CRN 178676-34-1

CMF (C2 H4 O)n C14 H8 N6 O5

CCI PMS



RN 614744-10-4 HCAPLUS

CN L-Cysteine, S,S'-(6A,6D-dideoxy- $\beta$ -cyclodextrin-6A,6D-diyl)bis-,  
 polymer with  $\alpha$ -[(4-nitrophenoxy)carbonyl]- $\omega$ -[[[(4-nitrophenoxy)carbonyl]oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

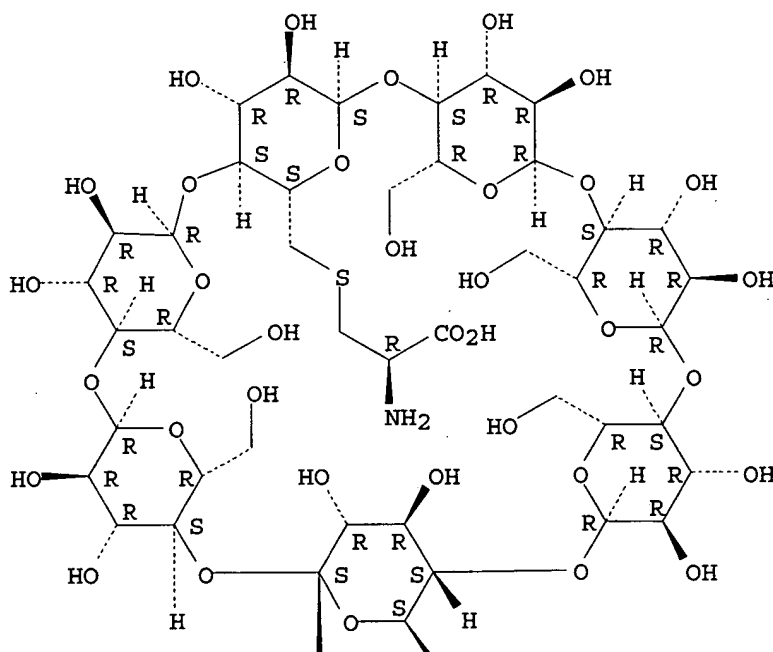
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CRN 614744-04-6

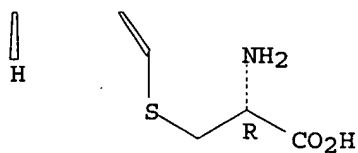
CMF C48 H80 N2 O37 S2

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

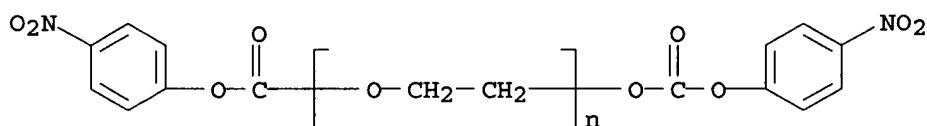


CM 2

CRN 150673-50-0

CMF (C2 H4 O)<sub>n</sub> C14 H8 N2 O9

CCI PMS



IT 76700-72-6P 614744-04-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

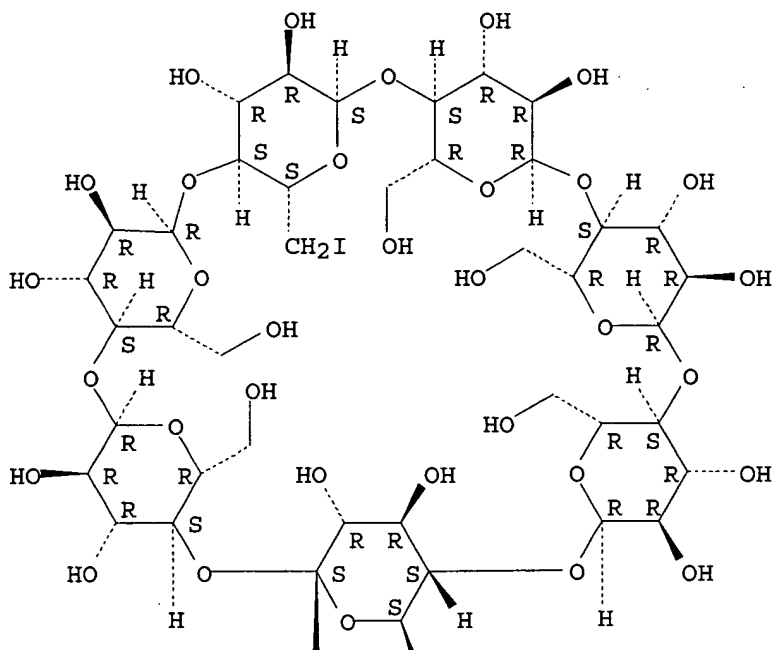
(synthesis of **linear**,  $\beta$ -Cyclodextrin-based **polymers** and their camptothecin conjugates)

RN 76700-72-6 HCAPLUS

CN  $\beta$ -Cyclodextrin, 6A,6D-dideoxy-6A,6D-diiodo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

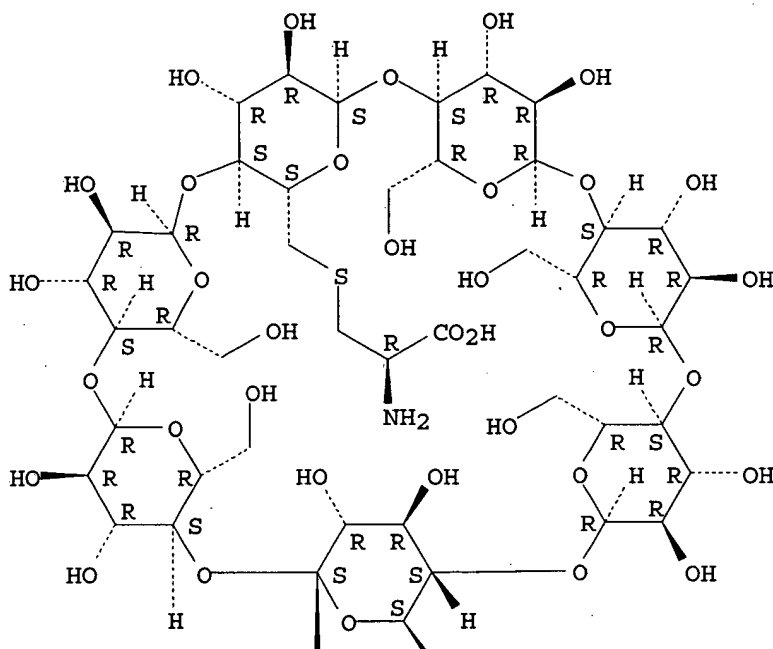


RN 614744-04-6 HCAPLUS

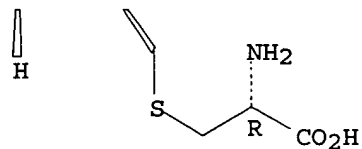
CN L-Cysteine, S,S'-(6A,6D-dideoxy-β-cyclodextrin-6A,6D-diyl)bis- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 6 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:623070 HCAPLUS

DOCUMENT NUMBER: 139:292710

TITLE: Purification of Cyclic Polymers Prepared from Linear Precursors by Inclusion Complexation of Linear Byproducts with Cyclodextrins

AUTHOR(S): Singla, Swati; Zhao, Tiejun; Beckham, Haskell W.

CORPORATE SOURCE: School of Textile and Fiber Engineering, Georgia Institute of Technology, Atlanta, GA, 30332, USA

SOURCE: Macromolecules (2003), 36(18), 6945-6948  
CODEN: MAMOBX; ISSN: 0024-9297

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cyclic poly(oxyethylene) prepared from linear precursors was purified by inclusion complexation and precipitation of linear by products using  $\alpha$ -CD. Using the method described here, we have also prepared clean cyclic polymers from  $\alpha$ -hydroxy- $\omega$ -hydroxy-poly(oxyethylene)s of Mn - 600 and 900 g/mol. Since cyclodextrins are capable of forming inclusion complexes with a wide variety of linear polymers (organic, inorg., hydrophobic, hydrophilic), they can be used to sep. a wide variety of macrocycles from their linear by products even if the phys. properties of the two are similar.

CC 36-4 (Physical Properties of Synthetic High Polymers)

IT 10016-20-3,  $\alpha$ -Cyclodextrin

RL: NUU (Other use, unclassified); USES (Uses)  
(purification of cyclic poly(oxyethylene) by inclusion complexation of linear byproducts with  $\alpha$ -cyclodextrin)

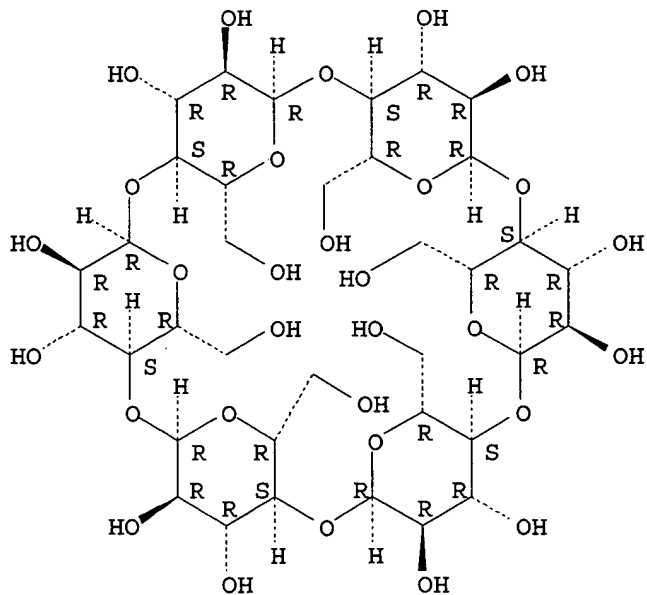
IT 10016-20-3,  $\alpha$ -Cyclodextrin

RL: NUU (Other use, unclassified); USES (Uses)  
(purification of cyclic poly(oxyethylene) by inclusion complexation of linear byproducts with  $\alpha$ -cyclodextrin)

RN 10016-20-3 HCAPLUS

CN  $\alpha$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 7 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2003:495047 HCAPLUS  
DOCUMENT NUMBER: 139:128714  
TITLE: The effects of structure on gene delivery with linear  
 $\beta$ - and  $\gamma$ -cyclodextrin-containing  
polycations  
AUTHOR(S): Popielarski, Stephen R.; Mishra, Swaroop; Davis, Mark  
E.  
CORPORATE SOURCE: Chemical Engineering, California Institute of  
Technology, Pasadena, CA, 91125, USA  
SOURCE: Journal of Inclusion Phenomena and Macrocyclic  
Chemistry (2002), Volume Date 2003, 44(1-4), 453-457  
CODEN: JIPCF5; ISSN: 1388-3127  
PUBLISHER: Kluwer Academic Publishers  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Cyclodextrin (CD)-containing polycations are prepared by copolymerization of  
3A3B-dideoxy-3A,3B-diamino- $\beta$ - and  $\gamma$ -CDs with di-Me  
suberimidate·2HCl to yield polyamidinium products. Both alkyl- and  
alkoxy-diamines are used to vary the spacing between the CD and the  
amidinium charge centers. It is found that the transfection efficiency and  
toxicity of such polycations is dramatically affected by the structure of  
the spacer separating the CD ring from the charge centers and less so by the  
type of CD used.

CC 3-2 (Biochemical Genetics)

Section cross-reference(s): 13, 33

IT 521059-84-7 521059-86-9 521059-88-1

521059-90-5 521059-91-6 521059-93-8

521059-97-2

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)

(effects of structure on gene delivery with linear  $\beta$ -  
and  $\gamma$ -cyclodextrin-containing polycations)

IT 521059-95-0P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL  
(Biological study); PREP (Preparation); USES (Uses)

(effects of structure on gene delivery with linear  $\beta$ -  
and  $\gamma$ -cyclodextrin-containing polycations)

IT 124-09-4, Hexamethylenediamine, reactions 7585-39-9,  $\beta$

Cyclodextrin 17465-86-0,  $\gamma$ -Cyclodextrin

RL: RCT (Reactant); RACT (Reactant or reagent)

(effects of structure on gene delivery with linear  $\beta$ -  
and  $\gamma$ -cyclodextrin-containing polycations)

IT 521059-82-5P 521059-83-6P 521059-85-8P

521059-87-0P 521059-89-2P 521059-92-7P

521059-94-9P 521059-96-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(effects of structure on gene delivery with linear  $\beta$ -  
and  $\gamma$ -cyclodextrin-containing polycations)

IT 521059-84-7 521059-86-9 521059-88-1

521059-90-5 521059-91-6 521059-93-8

521059-97-2

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)

(effects of structure on gene delivery with linear  $\beta$ -  
and  $\gamma$ -cyclodextrin-containing polycations)

RN 521059-84-7 HCAPLUS

CN  $\beta$ -Cyclodextrin, 3A,3B-bis[(2-aminoethyl)amino]-3A,3B-dideoxy-,  
(2AS,2BS,3AS,3BS)-, polymer with dimethyl octanediimide dihydrochloride  
(9CI) (CA INDEX NAME)

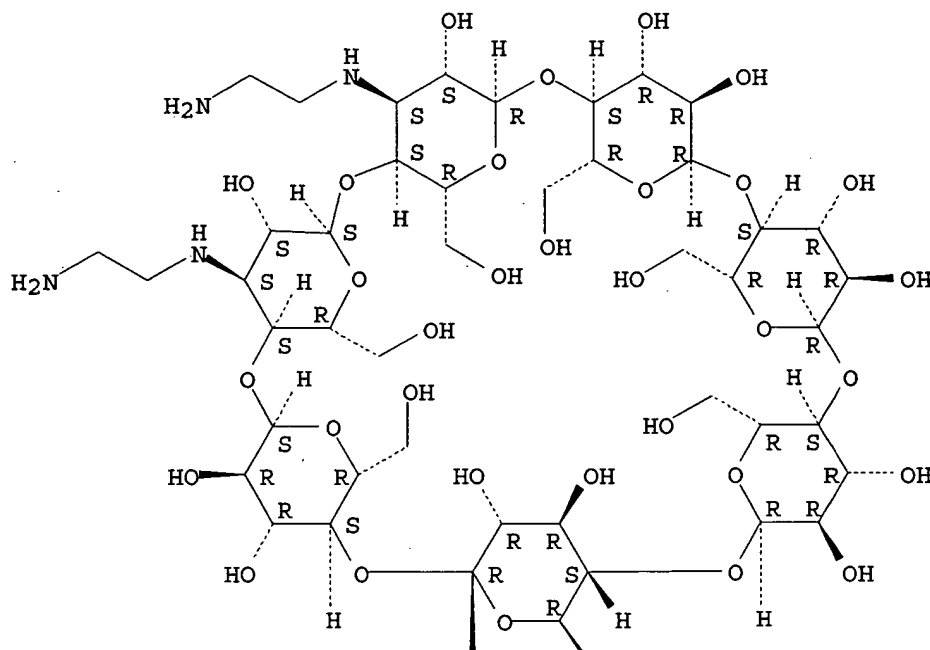
CM 1

CRN 521059-82-5

CMF C46 H82 N4 O33

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

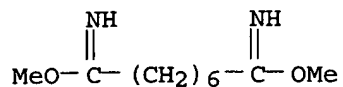


CM 2

CRN 34490-86-3

CMF C10 H20 N2 O2 . 2 Cl H





● 2 HCl

RN 521059-86-9 HCAPLUS  
 CN  $\beta$ -Cyclodextrin, 3A,3B-bis[(4-aminobutyl)amino]-3A,3B-dideoxy-,  
 (2AS,2BS,3AS,3BS)-, polymer with dimethyl octanediimide dihydrochloride  
 (9CI) (CA INDEX NAME)

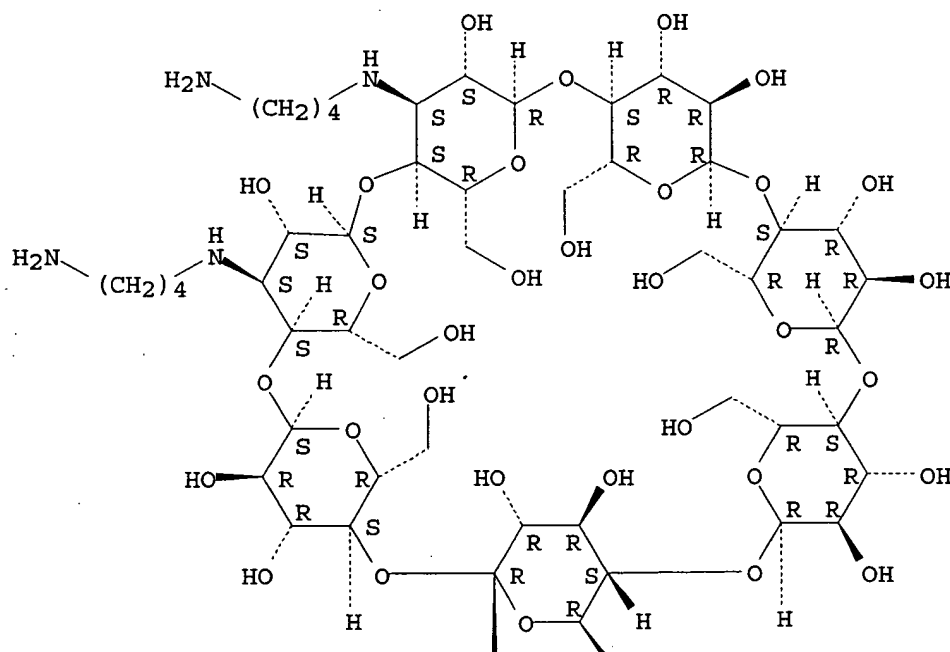
CM 1

CRN 521059-85-8

CMF C50 H90 N4 O33

Absolute stereochemistry.

PAGE 1-A



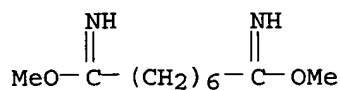
PAGE 2-A



CM 2

CRN 34490-86-3

CMF C10 H20 N2 O2 . 2 Cl H



● 2 HCl

RN 521059-88-1 HCAPLUS

CN  $\beta$ -Cyclodextrin, 3A,3B-bis[(6-aminohexyl)amino]-3A,3B-dideoxy-,  
(2AS,2BS,3AS,3BS)-, polymer with dimethyl octanediimidate dihydrochloride  
(9CI) (CA INDEX NAME)

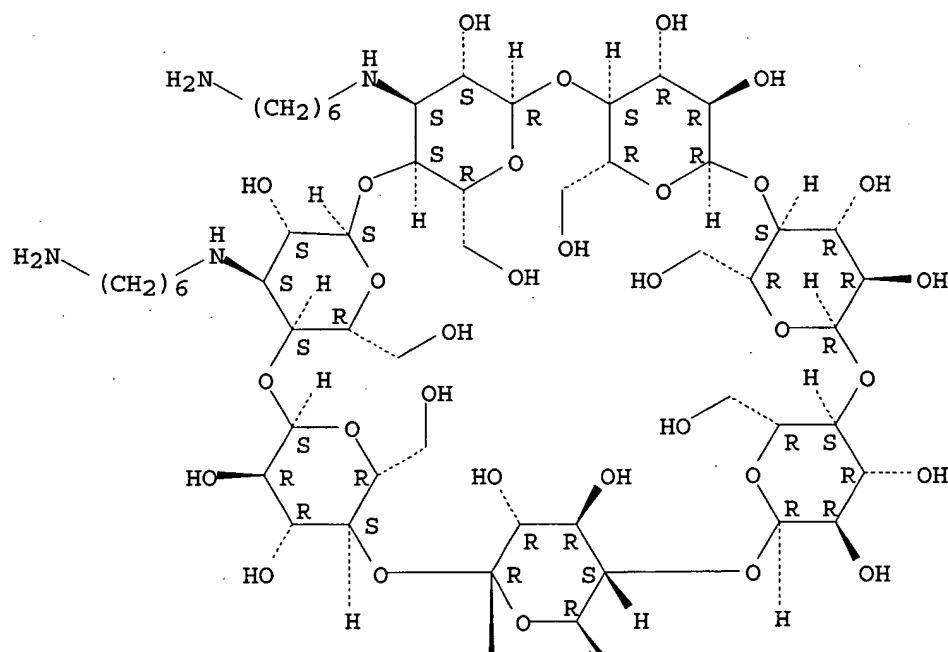
CM 1

CRN 521059-87-0

CMF C54 H98 N4 O33

Absolute stereochemistry.

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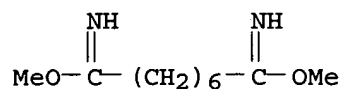
PAGE 2-A



CM 2

CRN 34490-86-3

CMF C10 H20 N2 O2 . 2 Cl H



●2 HCl

RN 521059-90-5 HCAPLUS

CN  $\beta$ -Cyclodextrin, 3A,3B-bis[[2-[2-(2-aminoethoxy)ethoxy]ethyl]amino]-  
 3A,3B-dideoxy-, (2AS,2BS,3AS,3BS)-, polymer with dimethyl octanediimide  
 dihydrochloride (9CI) (CA INDEX NAME)

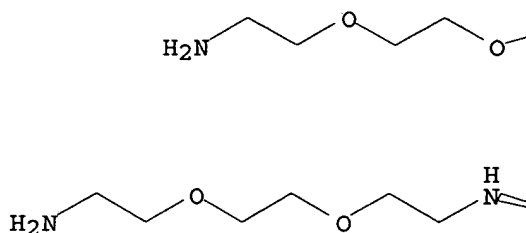
CM 1

CRN 521059-89-2

CMF C54 H98 N4 O37

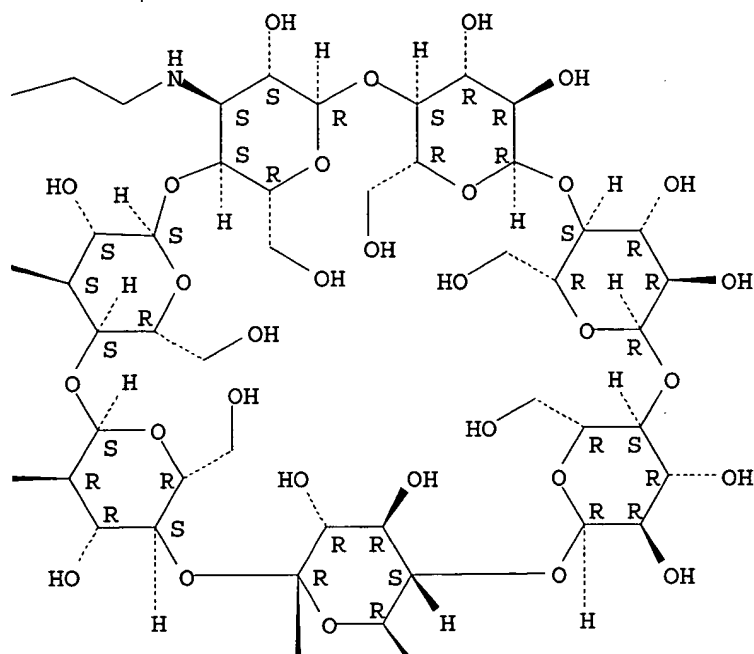
Absolute stereochemistry.

PAGE 1-A



HO-

PAGE 1-B



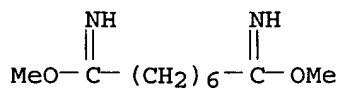
PAGE 2-B



CM 2

CRN 34490-86-3

CMF C10 H20 N2 O2 . 2 Cl H



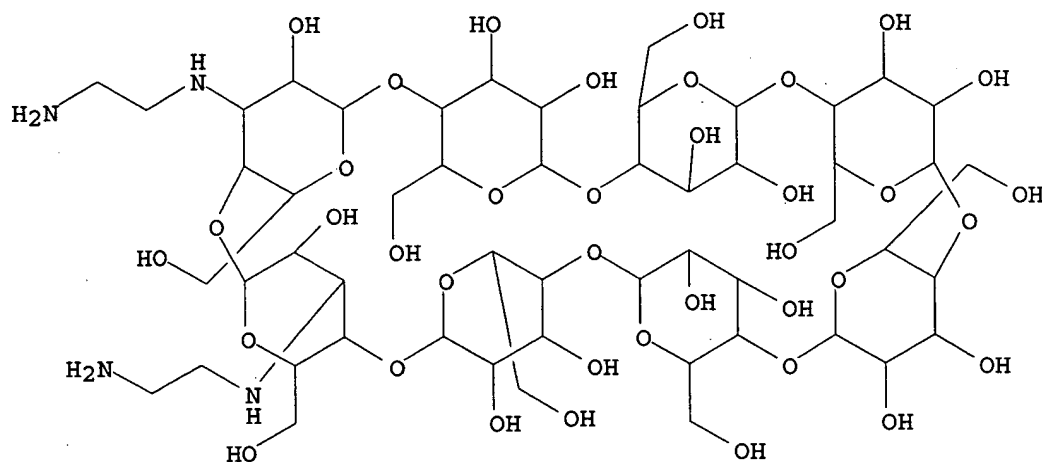
● 2 HCl

RN 521059-91-6 HCAPLUS

CN  $\gamma$ -Cyclodextrin, 3A,3B-bis[(2-aminoethyl)amino]-3A,3B-dideoxy-,  
 (2AS,2BS,3AS,3BS)-, polymer with dimethyl octanediiimide dihydrochloride  
 (9CI) (CA INDEX NAME)

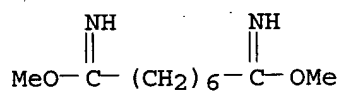
CM 1

CRN 521059-83-6  
CMF C52 H92 N4 O38



CM 2

CRN 34490-86-3  
CMF C10 H20 N2 O2 . 2 Cl H



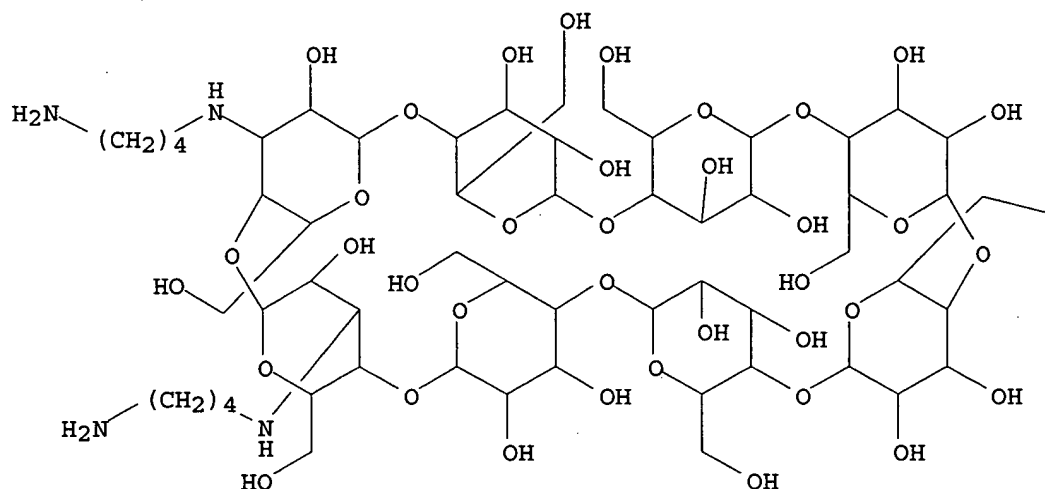
● 2 HCl

RN 521059-93-8 HCAPLUS  
CN  $\gamma$ -Cyclodextrin, 3A,3B-bis[(4-aminobutyl)amino]-3A,3B-dideoxy-,  
(2AS,2BS,3AS,3BS)-, polymer with dimethyl octanediimide dihydrochloride  
(9CI) (CA INDEX NAME)

CM 1

CRN 521059-92-7  
CMF C56 H100 N4 O38

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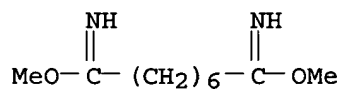
PAGE 1-B

—OH

CM 2

CRN 34490-86-3

CMF C10 H20 N2 O2 . 2 Cl H



● 2 HCl

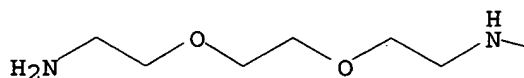
RN 521059-97-2 HCAPLUS

CN  $\gamma$ -Cyclodextrin, 3A,3B-bis[[2-[2-(2-aminoethoxy)ethoxy]ethyl]amino]-3A,3B-dideoxy-, (2AS,2BS,3AS,3BS)-, polymer with dimethyl octanediiimide dihydrochloride (9CI) (CA INDEX NAME)

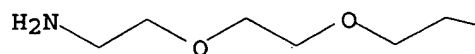
CM 1

CRN 521059-96-1  
CMF C60 H108 N4 O42

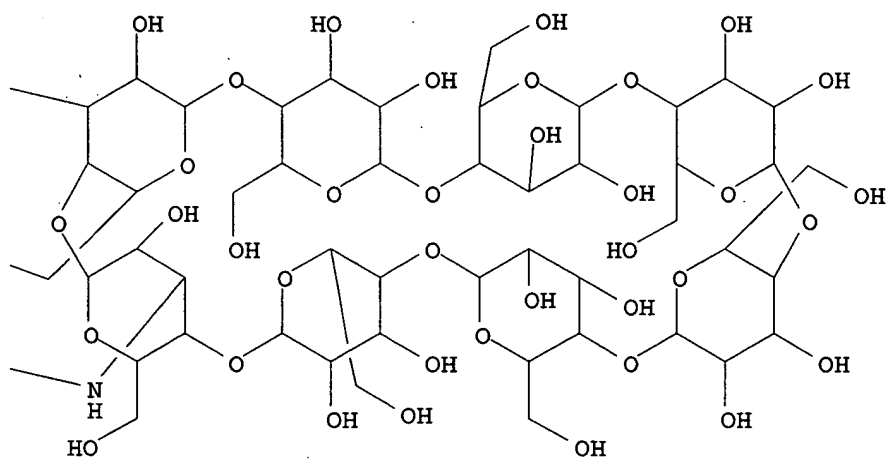
PAGE 1-A



HO-

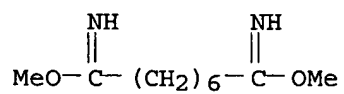


PAGE 1-B



CM 2

CRN 34490-86-3  
CMF C10 H20 N2 O2 . 2 Cl H



● 2 HCl

IT 521059-95-0P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (effects of structure on gene delivery with linear  $\beta$ - and  $\gamma$ -cyclodextrin-containing polycations)

RN 521059-95-0 HCAPLUS

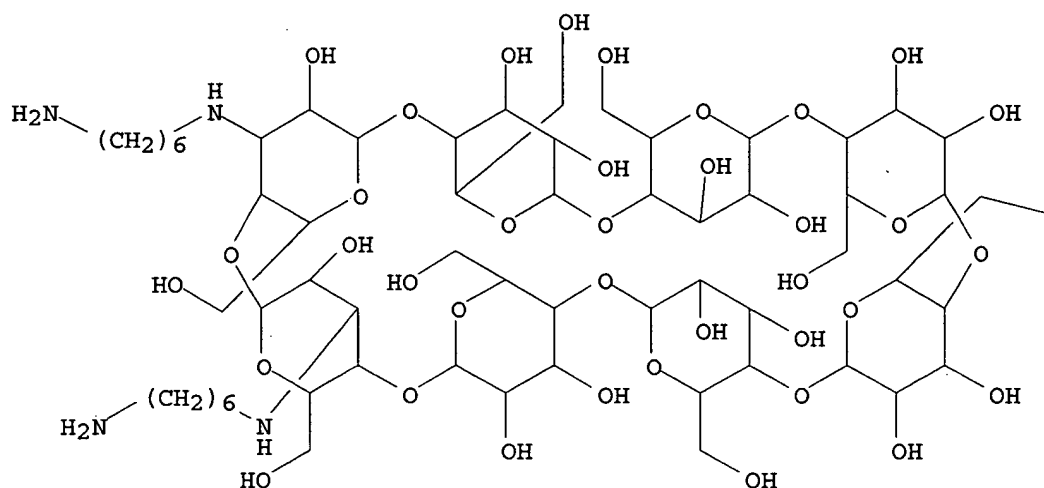
CN  $\gamma$ -Cyclodextrin, 3A,3B-bis[(6-aminohexyl)amino]-3A,3B-dideoxy-, (2AS,2BS,3AS,3BS)-, polymer with dimethyl octanediimide dihydrochloride (9CI) (CA INDEX NAME)

CM 1

CRN 521059-94-9

CMF C60 H108 N4 O38

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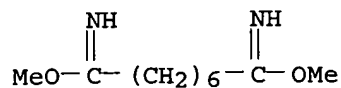
—OH

CM 2

CRN 34490-86-3

CMF C10 H20 N2 O2 . 2 Cl H



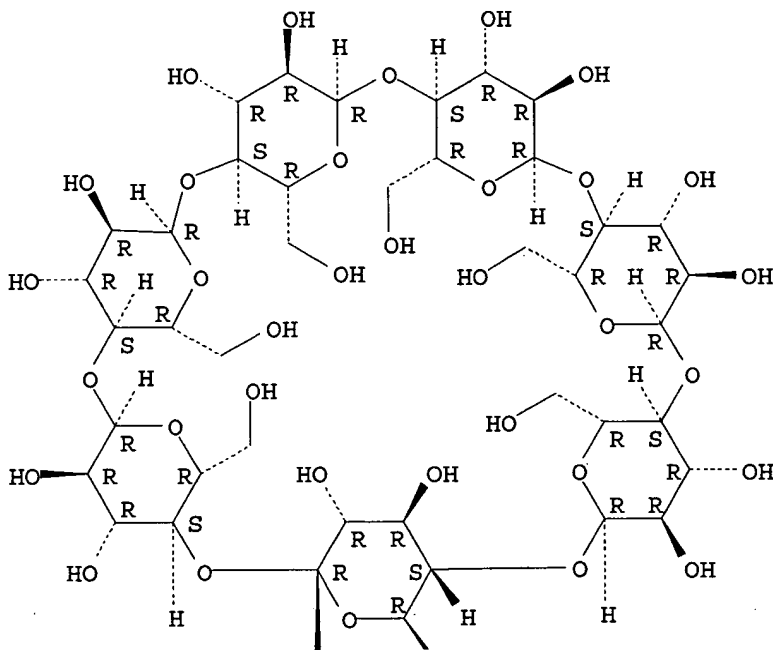


● 2 HCl

IT 7585-39-9,  $\beta$  Cyclodextrin 17465-86-0,  
 $\gamma$ -Cyclodextrin  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (effects of structure on gene delivery with linear  $\beta$ -  
 and  $\gamma$ -cyclodextrin-containing polycations)  
 RN 7585-39-9 HCAPLUS  
 CN  $\beta$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

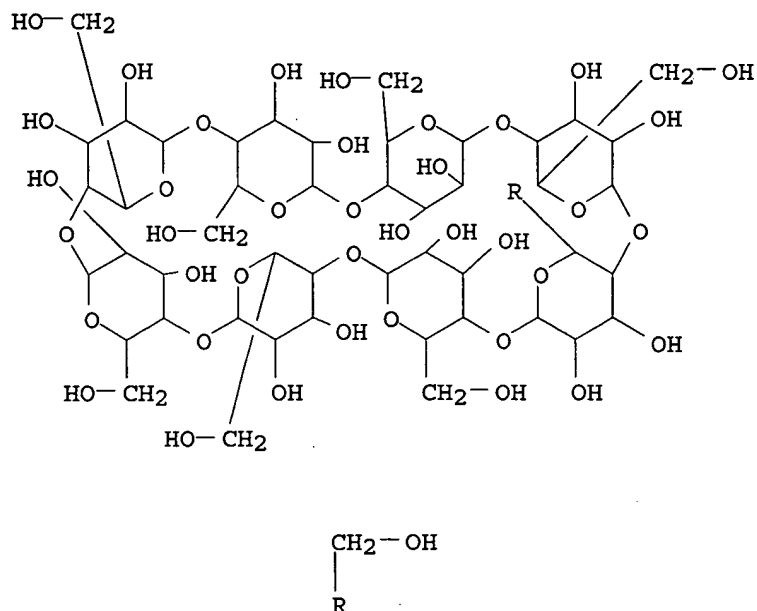
PAGE 1-A



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RN 17465-86-0 HCAPLUS  
 CN  $\gamma$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)



IT 521059-82-5P 521059-83-6P 521059-85-8P  
 521059-87-0P 521059-89-2P 521059-92-7P  
 521059-94-9P 521059-96-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)

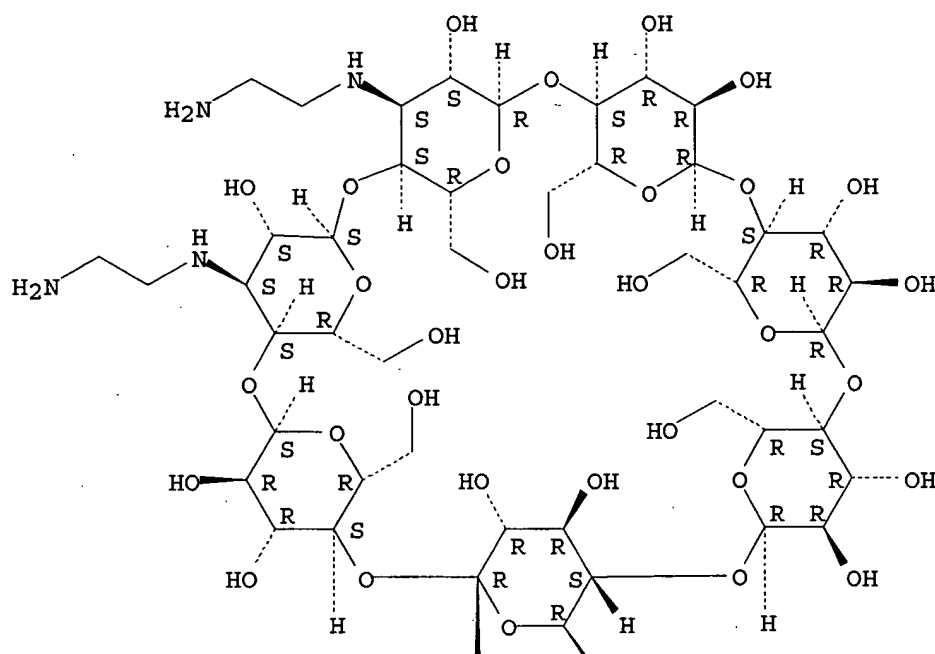
(effects of structure on gene delivery with **linear**  $\beta$ -  
 and  $\gamma$ -cyclodextrin-containing **polycations**)

RN 521059-82-5 HCAPLUS

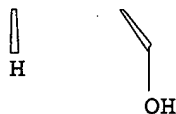
CN  $\beta$ -Cyclodextrin, 3A,3B-bis[(2-aminoethyl)amino]-3A,3B-dideoxy-,  
 (2AS,2BS,3AS,3BS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

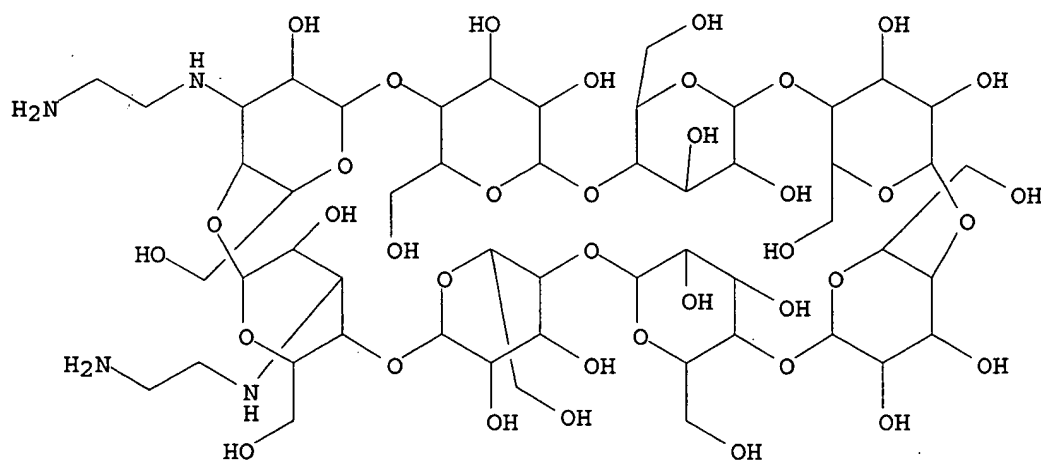
PAGE 1-A



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RN 521059-83-6 HCAPLUS  
CN  $\gamma$ -Cyclodextrin, 3A,3B-bis[(2-aminoethyl)amino]-3A,3B-dideoxy-,  
(2AS,2BS,3AS,3BS) - (9CI) (CA INDEX NAME)

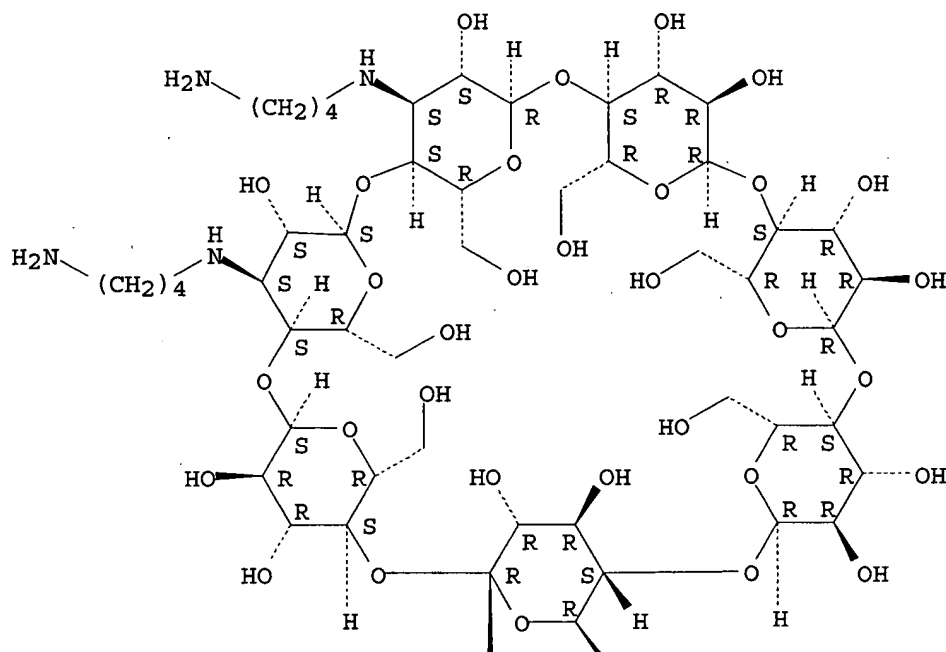


RN 521059-85-8 HCAPLUS

CN  $\beta$ -Cyclodextrin, 3A,3B-bis[(4-aminobutyl)amino]-3A,3B-dideoxy-,  
(2AS,2BS,3AS,3BS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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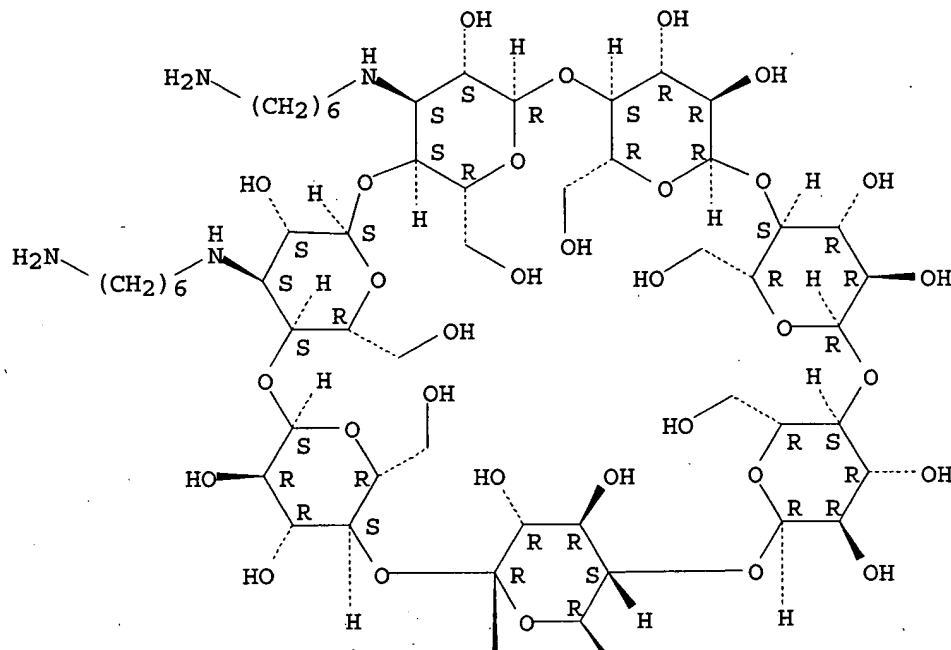


RN 521059-87-0 HCAPLUS

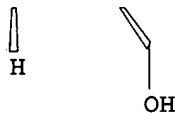
CN  $\beta$ -Cyclodextrin, 3A,3B-bis[(6-aminohexyl)amino]-3A,3B-dideoxy-,  
(2AS,2BS,3AS,3BS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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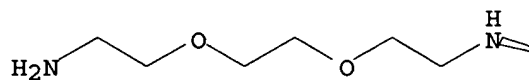
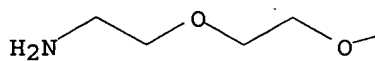


RN 521059-89-2 HCAPLUS

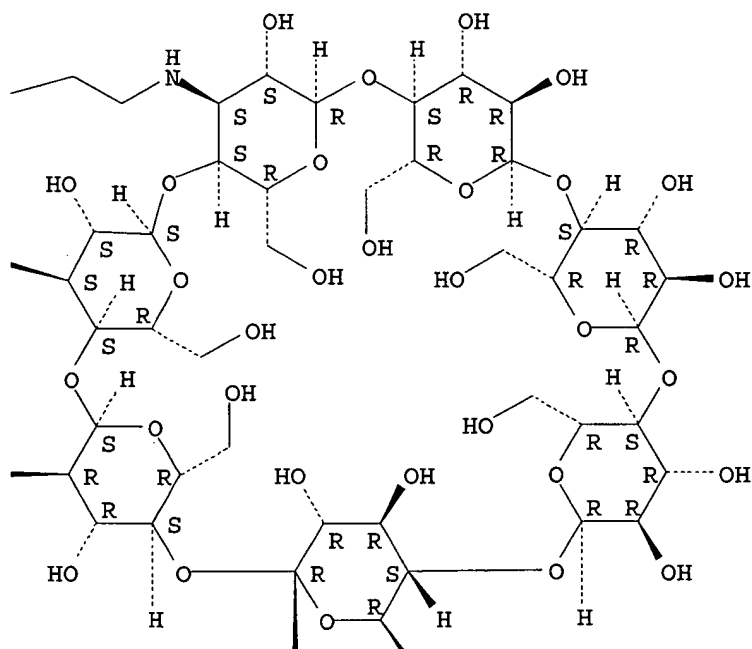
CN  $\beta$ -Cyclodextrin, 3A,3B-bis[[2-[2-(2-aminoethoxy)ethoxy]ethyl]amino]-  
3A,3B-dideoxy-, (2AS,2BS,3AS,3BS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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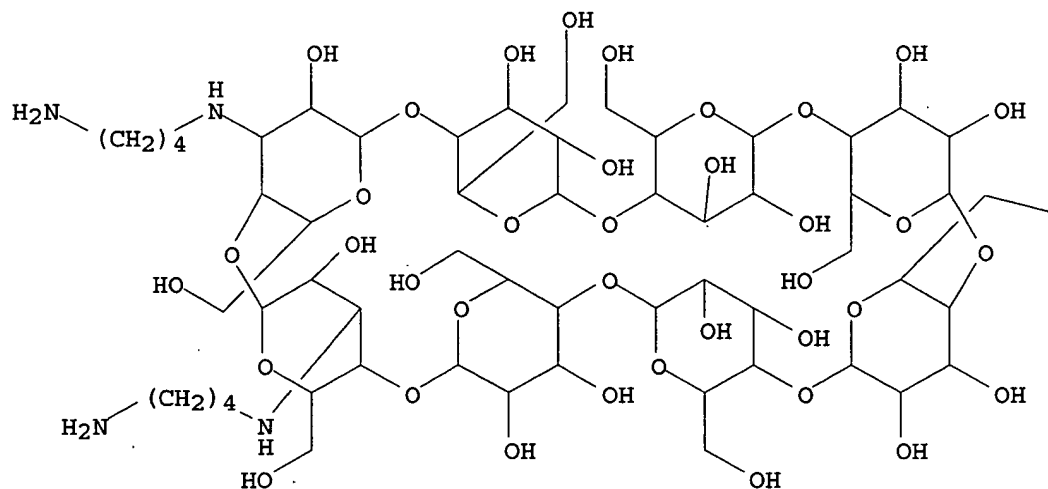
PAGE 2-B



RN 521059-92-7 HCAPLUS

CN  $\gamma$ -Cyclodextrin, 3A,3B-bis[(4-aminobutyl)amino]-3A,3B-dideoxy-,  
(2AS,2BS,3AS,3BS) - (9CI) (CA INDEX NAME)

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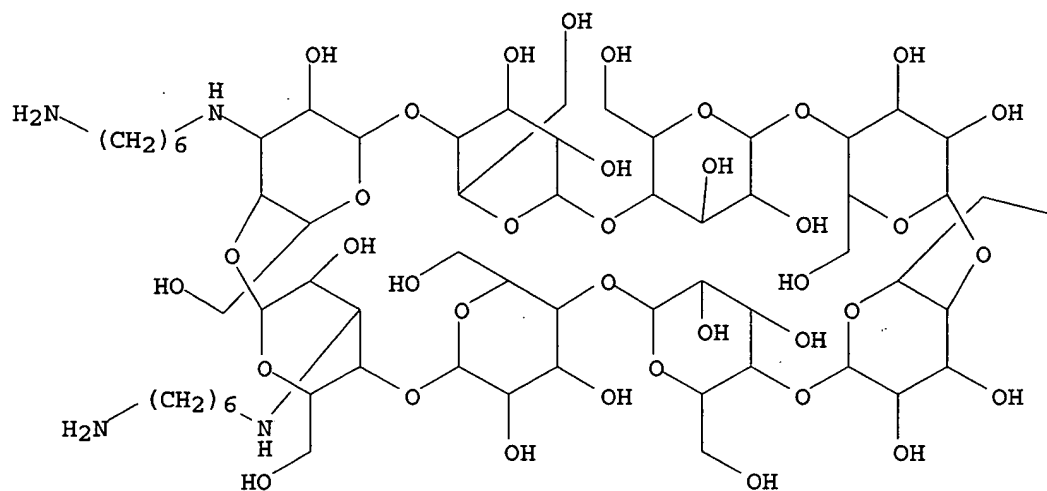
PAGE 1-B

—OH

RN 521059-94-9 HCAPLUS

CN  $\gamma$ -Cyclodextrin, 3A,3B-bis[(6-aminohexyl)amino]-3A,3B-dideoxy-,  
(2AS,2BS,3AS,3BS) - (9CI) (CA INDEX NAME)

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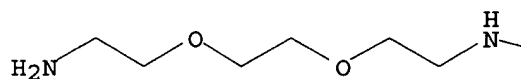


PAGE 1-B

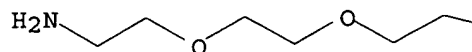
—OH

RN 521059-96-1 HCAPLUS  
 CN  $\gamma$ -Cyclodextrin, 3A,3B-bis[[2-[2-(2-aminoethoxy)ethoxy]ethyl]amino]-  
 3A,3B-dideoxy-, (2AS,2BS,3AS,3BS)-(9CI) (CA INDEX NAME)

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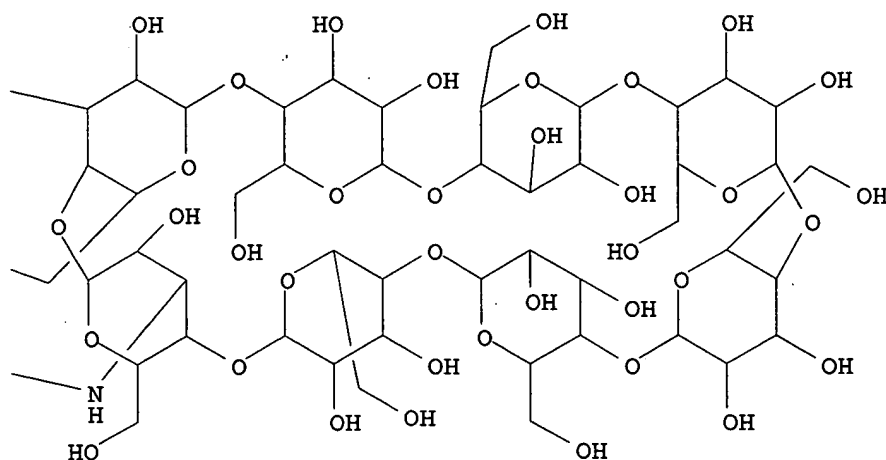


HO—





PAGE 1-B



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 8 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:381559 HCAPLUS

DOCUMENT NUMBER: 138:358341

TITLE: Optimization of cyclodextrin-containing polymers specifically designed for gene delivery

AUTHOR(S): Bellocq, Nathalie C.; Hwang, Sue J.; Davis, Mark E.

CORPORATE SOURCE: Dep. of Chem. Eng., California Inst. of Technol., Pasadena, CA, 91125, USA

SOURCE: Polymeric Materials Science and Engineering (2001), 84, 809-810

CODEN: PMSEDG; ISSN: 0743-0515

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cationic polymers synthesized by copolymerization of cyclodextrin-dicysteamine with a difunctionalized comonomer are able to self-assemble with DNA and transfect cultured cells. The structure of  $\beta$ -cyclodextrin polymers affects performance in DNA delivery cell toxicity. The low toxicity of these polymers makes them attractive agents for gene delivery applications.

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 33, 37

IT 254912-10-2P 254912-11-3P 496932-14-0P 518314-84-6P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(optimization of cyclodextrin-containing polymers specifically designed for gene delivery)

IT 254912-10-2P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(optimization of cyclodextrin-containing polymers specifically designed for gene delivery)

RN 254912-10-2 HCAPLUS

CN  $\beta$ -Cyclodextrin, 6A,6D-bis-S-(2-aminoethyl)-6A,6D-dithio-, polymer  
with dimethyl 3,3'-dithiobis[propanimidate] dihydrochloride (9CI) (CA  
INDEX NAME)

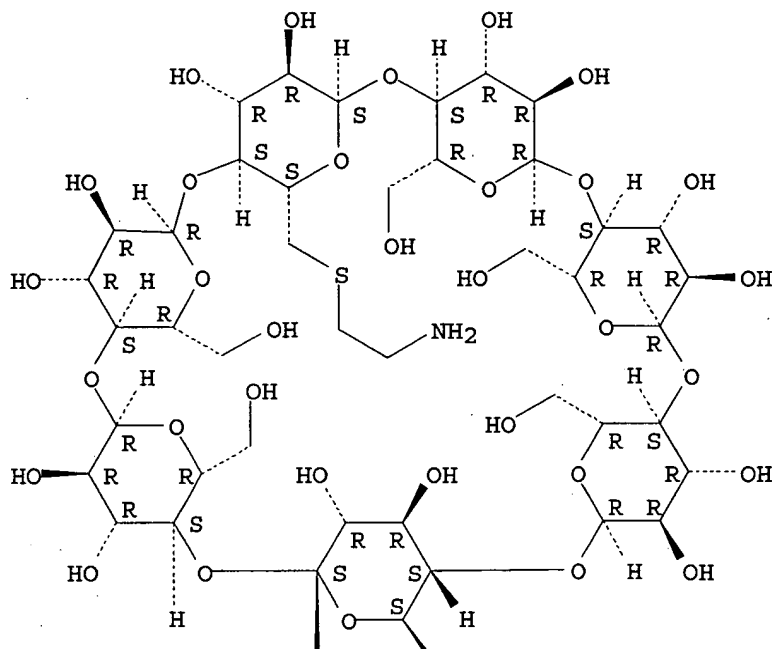
CM 1

CRN 101652-40-8

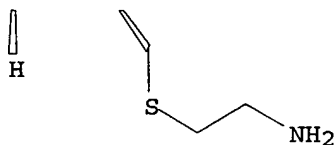
CMF C46 H80 N2 O33 S2

Absolute stereochemistry.

PAGE 1-A



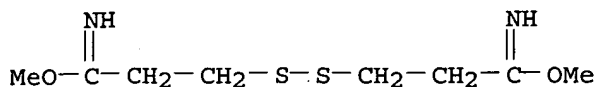
PAGE 2-A



CM 2

CRN 38285-78-8

CMF C8 H16 N2 O2 S2 . 2 Cl H



● 2 HCl

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 9 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:250847 HCAPLUS

DOCUMENT NUMBER: 139:7082

TITLE: Preparation of Vesicles and Nanoparticles of Amphiphilic Cyclodextrins Containing Labile Disulfide Bonds

AUTHOR(S): Nolan, Darren; Darcy, Raphael; Ravoo, Bart Jan

CORPORATE SOURCE: Centre for Synthesis and Chemical Biology, Department of Chemistry, National University of Ireland, University College Dublin, Belfield, Ire.

SOURCE: Langmuir 2003, 19(10), 4469-4472

CODEN: LANGD6 ISSN: 0743-7463

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:7082

AB Amphiphilic cyclodextrin derivs. were prepared in which a disulfide bond connects the hydrophobic substituents to the macrocycle. These compds. were obtained by 1,3-dicyclohexylcarbodiimide-mediated coupling reactions of heptakis(6-amino-6-deoxy)-β-cyclodextrins and disulfide-containing carboxylic acids of increasing hydrophobicity. To improve the water solubility of the cyclodextrins, oligo(ethylene glycol) substituents were grafted to the secondary side of the cyclodextrin mols. The amphiphilic cyclodextrins form vesicles or nanoparticles in water, which disintegrate in the presence of the disulfide reducing agent dithiothreitol. Hydrophobic guest mols. are released from the nanoparticles upon cleavage of the disulfides.

CC 33-4 (Carbohydrates)

Section cross-reference(s): 22

IT 394655-27-7P 532402-35-0P 534575-15-0P 534599-26-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and hydrophobicity of vesicles and nanoparticles of amphiphilic cyclodextrins containing labile disulfide bonds)

IT 532402-35-0P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and hydrophobicity of vesicles and nanoparticles of amphiphilic cyclodextrins containing labile disulfide bonds)

RN 532402-35-0 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy-, 2A,2B,2C,2D,2E,2F,2G-heptaether with 6A,6B,6C,6D,6E,6F,6G-heptadeoxy-6A,6B,6C,6D,6E,6F,6G-heptakis[[3-[[3-(octyloxy)-3-oxopropyl]dithio]-1-oxopropyl]amino]-β-cyclodextrin (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 10 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:211336 HCAPLUS

DOCUMENT NUMBER: 138:402316

TITLE: Purification of cyclic poly(oxyethylene) by inclusion complexation of linear byproducts with  $\alpha$ -cyclodextrin

AUTHOR(S): Singla, Swati; Zhao, Tiejun; Beckham, Haskell W.

CORPORATE SOURCE: School of Textile and Fiber Engineering, Atlanta, GA, 30332, USA

SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2003), 44(1), 1222-1223  
CODEN: ACPPAY; ISSN: 0032-3934

PUBLISHER: American Chemical Society, Division of Polymer Chemistry

DOCUMENT TYPE: Journal; (computer optical disk)

LANGUAGE: English

AB Cyclic poly(oxyethylene) was purified from linear precursors and chain-extended polymer by inclusion complexation of the linear byproducts with  $\alpha$ -cyclodextrin. Success of this purification method was established by GPC and MALDI-TOF mass spectrometry.

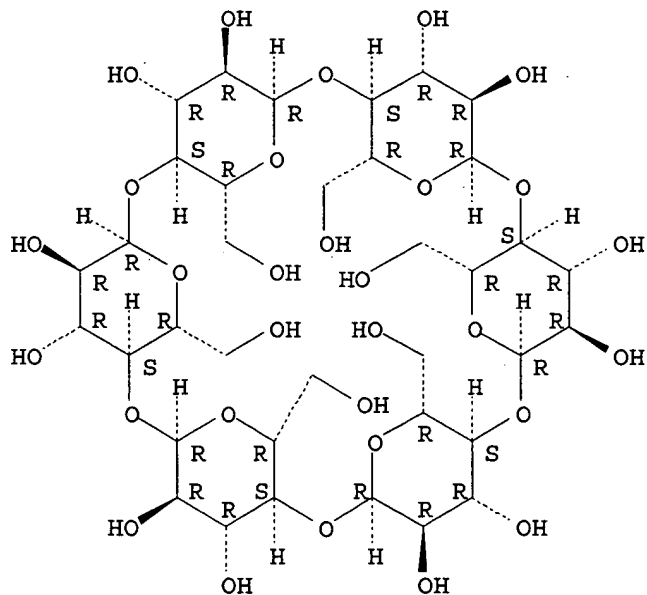
CC 35-7 (Chemistry of Synthetic High Polymers)

IT 10016-20-3,  $\alpha$ -CyclodextrinRL: NUU (Other use, unclassified); USES (Uses)  
(purification of cyclic poly(oxyethylene) by inclusion complexation of **linear** byproducts with  $\alpha$ -cyclodextrin)IT 10016-20-3,  $\alpha$ -CyclodextrinRL: NUU (Other use, unclassified); USES (Uses)  
(purification of cyclic poly(oxyethylene) by inclusion complexation of **linear** byproducts with  $\alpha$ -cyclodextrin)

RN 10016-20-3 HCAPLUS

CN  $\alpha$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 11 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:167523 HCAPLUS

DOCUMENT NUMBER: 138:207334

TITLE: Linear tube-shaped nitrated cyclodextrin polymers for encapsulation of nitramine explosives

INVENTOR(S): Ruebner, Anja; Statton, Gary L.; Consaga, John P.

PATENT ASSIGNEE(S): Mach I, Inc., USA

SOURCE: U.S., 10 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6527887	B1	20030304	US 2002-52430	20020118
PRIORITY APPL. INFO.:			US 2002-52430	20020118

AB Linear tube-shaped nitrated cyclodextrin polymers, with mol. wts. 2000-50,000 and containing 10-20% nitrogen, are prepared from  $\alpha$ -,  $\beta$ -, and  $\gamma$ -cyclodextrin starting materials that are connected by bifunctional linking groups, of general structures -O-X-(A)-Y-O- (X and Y are independently -CH-, a chain of -CH<sub>2</sub>- or Ph groups, and A = H, OH, NH<sub>2</sub>, CO<sub>2</sub>H, or -CH<sub>3</sub>) and -[X-Z(X<sub>n</sub>-Y)<sub>m</sub>]<sub>p</sub> (X = -CH<sub>2</sub>-, Z = -CH-, Y = NH<sub>2</sub>, CO<sub>2</sub>H, and OH; n = 0-1, m = 1, and p = 20-200). The cyclodextrins are bound to the polymer backbone by a secondary amine, urethane, ester, or ether bonds, and they can encapsulate conventional explosives (e.g., RDX or HMX) to form desensitized explosives. Synthesis is preferably carried out using a supported water-swallowable polystyrene-based resin.

IC ICM C06B025-02  
ICS C08G063-91

NCL 149108000; 525054200; 525054300; 525054420; 525063000; 525066000; 524081000; 149088000; 149108600; 149108800

CC 50-2 (Propellants and Explosives)  
Section cross-reference(s): 35, 38

IT 500313-15-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(synthesis and nitration of; in synthesis of **linear** tube-shaped nitrated cyclodextrin **polymers** for encapsulation of nitramine explosives)

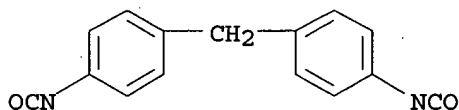
IT 97227-33-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(synthesis and **poly**(allylamine) reaction with; in synthesis of **linear** tube-shaped nitrated cyclodextrin **polymers** for encapsulation of nitramine explosives)

IT 25916-38-5DP,  $\alpha$ -Cyclodextrin-epichlorohydrin copolymer, borohydride-reduced, nitrated 30551-89-4DP, Poly(allyl amine), compds. with 6-tolylsulfonyl-6-deoxy-2-cyclodextrin 97227-33-3DP, compds. with **poly**(allyl amine) 350811-56-2P,  $\alpha$ -Cyclodextrin-epichlorohydrin copolymer, nitrate 500314-75-0P, Cyclodextrin-4,4'-MDI copolymer, nitrate  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(synthesis of **linear** tube-shaped nitrated cyclodextrin **polymers** for encapsulation of nitramine explosives)

IT 500313-15-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(synthesis and nitration of; in synthesis of **linear**  
tube-shaped nitrated cyclodextrin **polymers** for encapsulation  
of nitramine explosives)  
RN 500313-15-5 HCAPLUS  
CN Cyclodextrin, polymer with 1,1'-methylenebis[4-isocyanatobenzene] (9CI)  
(CA INDEX NAME)  
  
CM 1  
  
CRN 12619-70-4  
CMF Unspecified  
CCI MAN

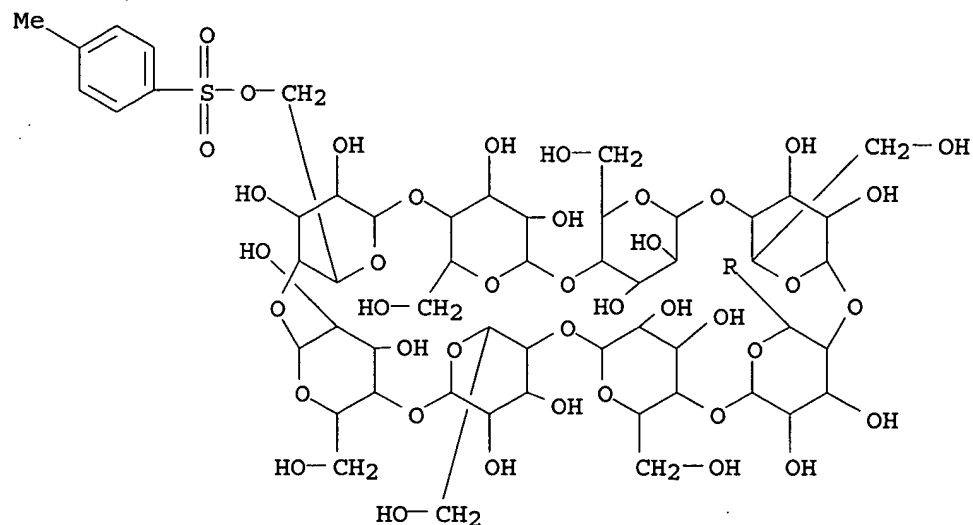
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2  
  
CRN 101-68-8  
CMF C15 H10 N2 O2

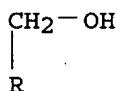


IT 97227-33-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(synthesis and **poly**(allylamine) reaction with; in synthesis  
of **linear** tube-shaped nitrated cyclodextrin **polymers**  
for encapsulation of nitramine explosives)  
RN 97227-33-3 HCAPLUS  
CN  $\gamma$ -Cyclodextrin, 6A-(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

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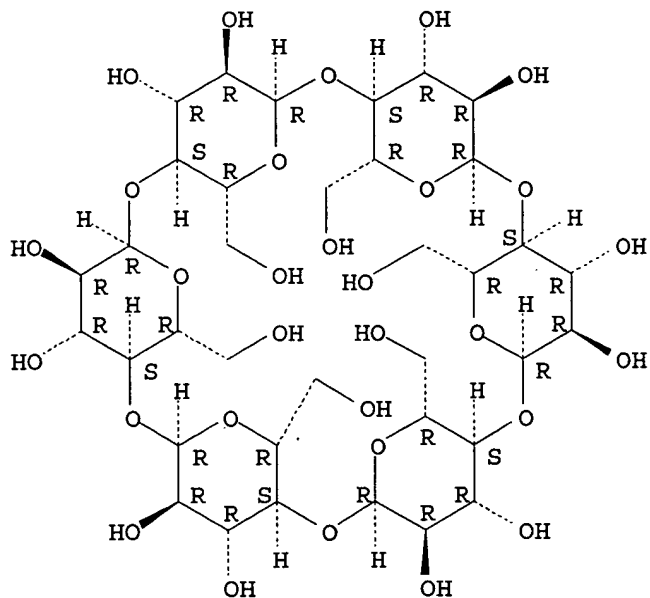


IT 25916-38-5DP,  $\alpha$ -Cyclodextrin-epichlorohydrin  
 copolymer, borohydride-reduced, nitrated 97227-33-3DP,  
 compds. with poly(allyl amine) 350811-56-2P,  
 $\alpha$ -Cyclodextrin-epichlorohydrin copolymer, nitrate  
 500314-75-0P, Cyclodextrin-4,4'-MDI copolymer, nitrate  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)  
 (synthesis of linear tube-shaped nitrated cyclodextrin  
 polymers for encapsulation of nitramine explosives)  
 RN 25916-38-5 HCAPLUS  
 CN  $\alpha$ -Cyclodextrin, polymer with (chloromethyl)oxirane (9CI) (CA INDEX  
 NAME)

CM 1

CRN 10016-20-3  
 CMF C36 H60 O30

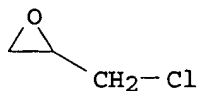
Absolute stereochemistry.



CM 2

CRN 106-89-8

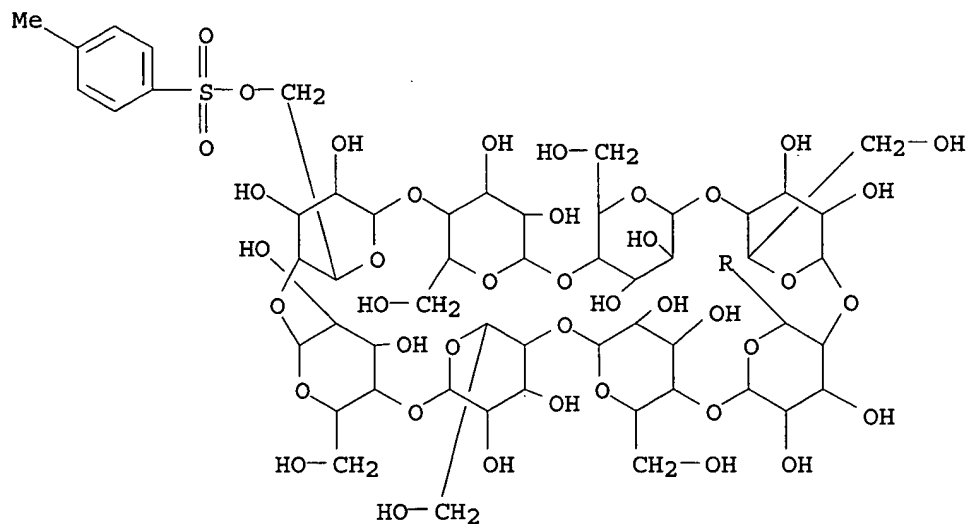
CMF C3 H5 Cl O



RN 97227-33-3 HCAPLUS

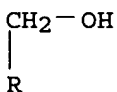
CN  $\gamma$ -Cyclodextrin, 6A-(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

PAGE 1-A





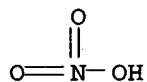
PAGE 2-A



RN 350811-56-2 HCAPLUS  
 CN  $\alpha$ -Cyclodextrin, polymer with (chloromethyl)oxirane, nitrate (9CI)  
 (CA INDEX NAME)

CM 1

CRN 7697-37-2  
 CMF H N O3



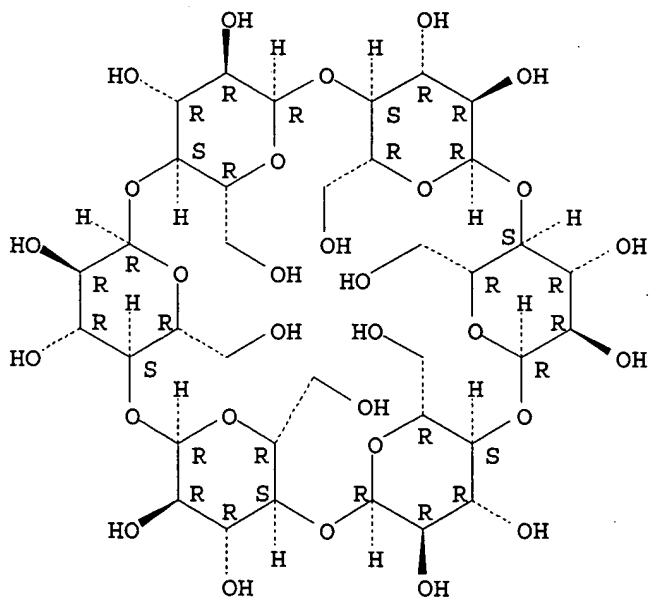
CM 2

CRN 25916-38-5  
 CMF (C36 H60 O30 . C3 H5 Cl O)x  
 CCI PMS

CM 3

CRN 10016-20-3  
 CMF C36 H60 O30

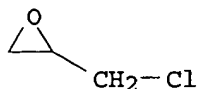
Absolute stereochemistry.



CM 4

CRN 106-89-8

CMF C3 H5 Cl O



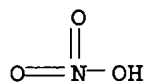
RN 500314-75-0 HCAPLUS

CN Cyclodextrin, polymer with 1,1'-methylenebis[4-isocyanatobenzene], nitrate (ester) (9CI) (CA INDEX NAME)

CM 1

CRN 7697-37-2

CMF H N O3



CM 2

CRN 500313-15-5

CMF (C15 H10 N2 O2 . Unspecified)x

CCI PMS

CM 3

CRN 12619-70-4

CMF Unspecified

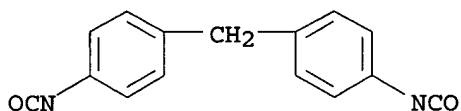
CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 4

CRN 101-68-8

CMF C15 H10 N2 O2



REFERENCE COUNT:

13

THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 12 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:24871 HCAPLUS

DOCUMENT NUMBER: 138:221764  
TITLE: Binding Ability and Self-Assembly Behavior of Linear Polymeric Supramolecules Formed by Modified  $\beta$ -Cyclodextrin  
AUTHOR(S): Liu, Yu; Fan, Zhi; Zhang, Heng-Yi; Diao, Chun-Hua  
CORPORATE SOURCE: Department of Chemistry, State Key Laboratory of Elemento-Organic Chemistry, Nankai University, Tianjin, 300071, Peop. Rep. China  
SOURCE: Organic Letters (2003), 5(3), 251-254  
CODEN: ORLEF7; ISSN: 1523-7060  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:221764

AB The binding ability and self-assembly behavior of mol. inter-penetration by newly synthesized mono[6-O-(4-formyl-phenyl)- $\beta$ -cyclodextrin] has been investigated, revealing the formation mechanism of modified cyclodextrin from solution aggregation to solid linear polymeric supramols.

CC 33-4 (Carbohydrates)  
Section cross-reference(s): 75

IT 500757-70-0DP, self-inclusion complex  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (crystal structure of; preparation and inclusion binding ability and self-assembly behavior of **linear polymeric** supramols formed by modified cyclodextrin)

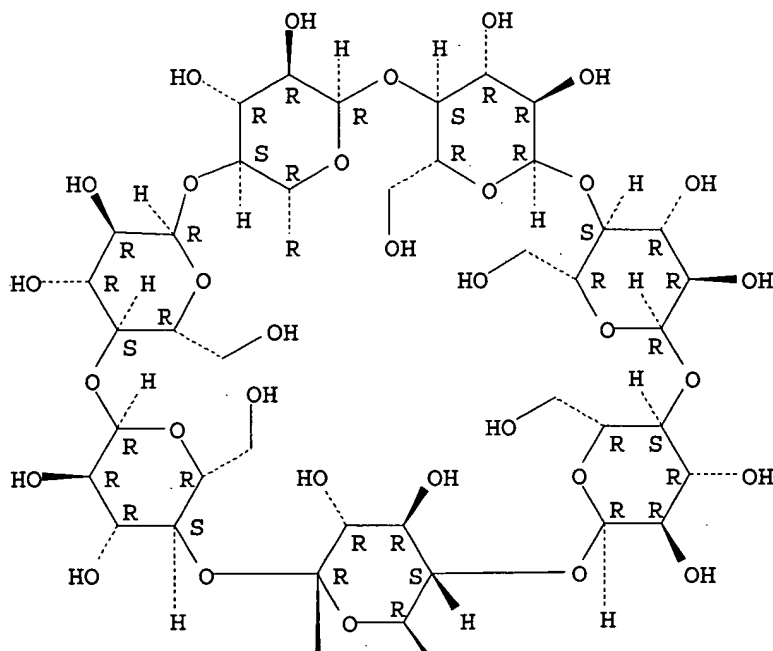
IT 67217-55-4P 500757-70-0P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and inclusion binding ability and self-assembly behavior of **linear polymeric** supramols formed by modified cyclodextrin)

IT 500757-70-0DP, self-inclusion complex  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (crystal structure of; preparation and inclusion binding ability and self-assembly behavior of **linear polymeric** supramols formed by modified cyclodextrin)

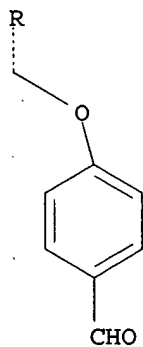
RN 500757-70-0 HCAPLUS  
CN  $\beta$ -Cyclodextrin, 6A-O-(4-formylphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



IT 67217-55-4P 500757-70-0P

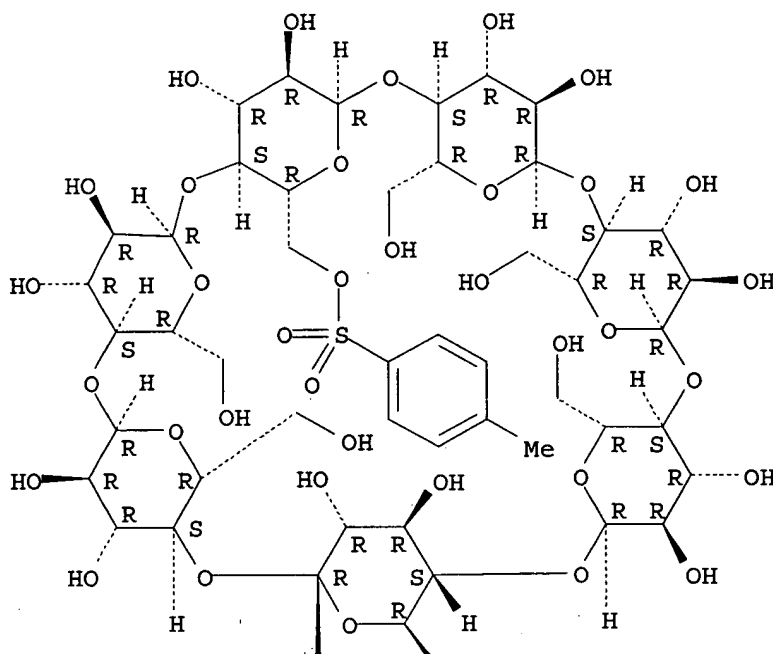
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and inclusion binding ability and self-assembly behavior of  
**linear polymeric** supramols formed by modified  
 cyclodextrin)

RN 67217-55-4 HCAPLUS

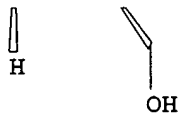
CN  $\beta$ -Cyclodextrin, 6A-(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



PAGE 2-A

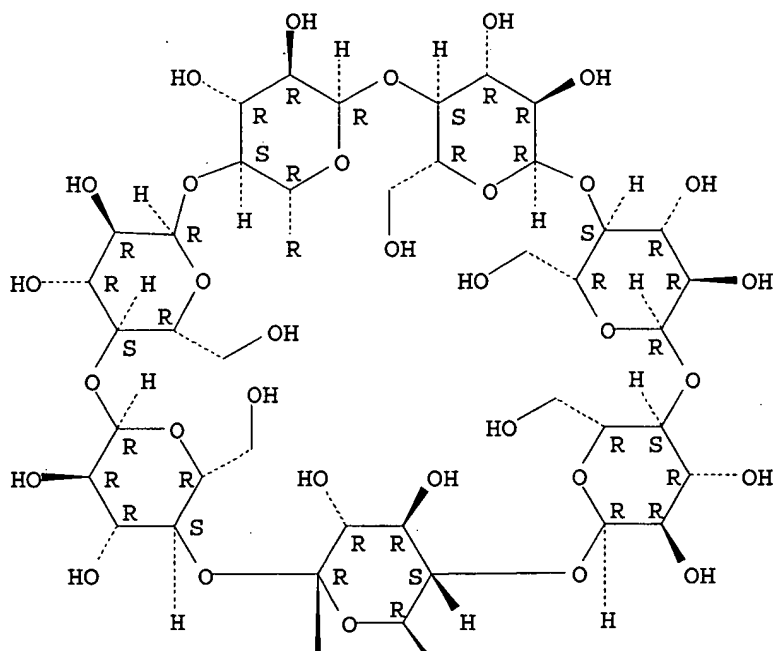


RN 500757-70-0 HCAPLUS

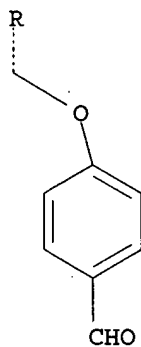
CN  $\beta$ -Cyclodextrin, 6A-O-(4-formylphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 13 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:867076 HCAPLUS

DOCUMENT NUMBER: 137:354346

TITLE: Polymeric inclusion compound-based fibers for toxic

substance removal, preparation method thereof, and  
uses therewith  
INVENTOR(S): Sakairi, Nobuo  
PATENT ASSIGNEE(S): Snc K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002327338	A2	20021115	JP 2001-128821	20010426
PRIORITY APPLN. INFO.:			JP 2001-128821	20010426

AB Title fibers are linear aminopolysaccharides bound with cyclic oligosaccharides. Thus, a chitosan fiber spun from a solution containing chitosan and acetic acid was crosslinked with hexamethylene diisocyanate, which was dipped in an ozone-oxidized  $\beta$ -cyclodextrin derivative solution obtained from  $\beta$ -cyclodextrin, allyl bromide, and di-Me sulfate to give a cyclodextrin-bound chitosan fiber showing good p-nitrophenol and bisphenol A inclusion.

IC ICM D01F009-00  
ICS C08B037-08; C08B037-16

CC 40-9 (Textiles and Fibers)  
Section cross-reference(s): 44

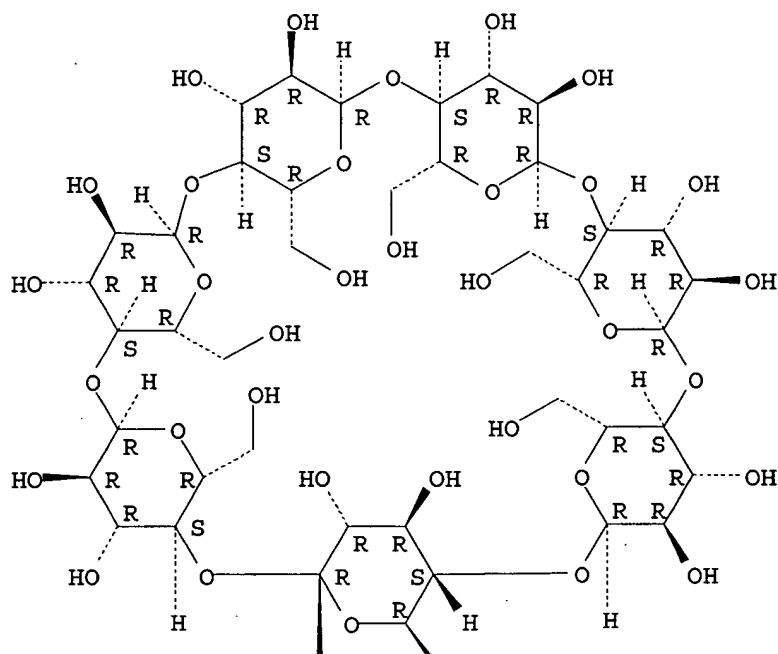
IT 7585-39-9D,  $\beta$ -Cyclodextrin, allyl and Me ether derivs., oxidized, reaction products with crosslinked chitosan fiber 10016-20-3D,  $\alpha$ -Cyclodextrin, reaction products with **linear aminopolysaccharides 17465-86-0D**,  $\gamma$ -Cyclodextrin, reaction products with **linear aminopolysaccharides**  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(preparation of **polymeric** inclusion compound-based fibers comprising **aminopolysaccharides** bound with cyclic oligosaccharides)

IT 7585-39-9D,  $\beta$ -Cyclodextrin, allyl and Me ether derivs., oxidized, reaction products with crosslinked chitosan fiber 10016-20-3D,  $\alpha$ -Cyclodextrin, reaction products with **linear aminopolysaccharides 17465-86-0D**,  $\gamma$ -Cyclodextrin, reaction products with **linear aminopolysaccharides**  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(preparation of **polymeric** inclusion compound-based fibers comprising **aminopolysaccharides** bound with cyclic oligosaccharides)

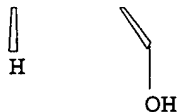
RN 7585-39-9 HCAPLUS  
CN  $\beta$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



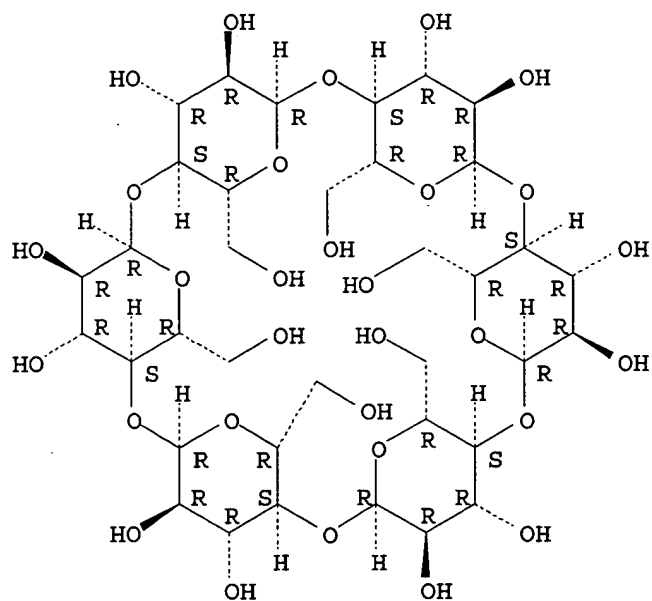
PAGE 2-A



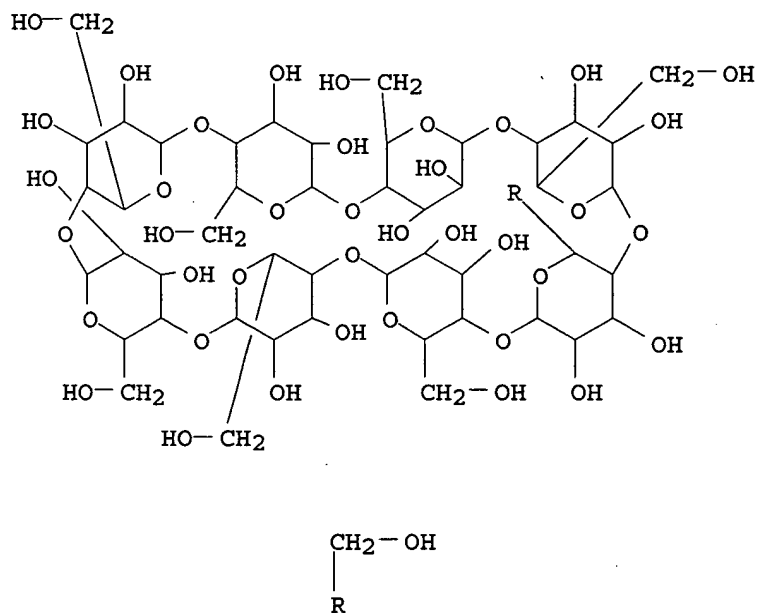
RN 10016-20-3 HCAPLUS  
CN  $\alpha$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.





RN 17465-86-0 HCAPLUS  
 CN  $\gamma$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)



L57 ANSWER 14 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2002:487421 HCAPLUS  
 DOCUMENT NUMBER: 137:47645  
 TITLE: Preparation of adamantyl-polyethylene glycol  
 containing sugar and peptide residues and inclusion  
 complexes as therapeutic agents  
 INVENTOR(S): Hwang, Pun Suzie; Gonzalez, Hector; Davis, Mark E.;

PATENT ASSIGNEE(S): Bellocq, Nathalie; Cheng, Jianjun  
 California Institute of Technology, USA; Insert  
 Therapeutics, Inc.  
 SOURCE: PCT Int. Appl., 138 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002049676	A2	20020627	WO 2001-US48620	20011219
WO 2002049676	A3	20021227		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002029065	A5	20020701	AU 2002-29065	20011219
US 2003008818	A1	20030109	US 2001-21312	20011219
US 2003017972	A1	20030123	US 2001-21294	20011219
EP 1351710	A2	20031015	EP 2001-990201	20011219

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

## PRIORITY APPLN. INFO.:

US 2000-256341P F 20001219  
 US 2000-256344P F 20001219  
 US 2001-293543P P 20010529  
 WO 2001-US48620 W 20011219

AB The invention provides a composition containing particulate composite of a polymer

with a formula of adamantyl-(CH<sub>2</sub>)<sub>n</sub>-Ja-PEG<sub>x</sub>-Lb-(functional group)<sub>y</sub> wherein J is NH, C(O)NH(CH<sub>2</sub>)<sub>d</sub>, NHC(O)(CH<sub>2</sub>)<sub>d</sub>, XH<sub>2</sub>SS, CO<sub>2</sub>, (CH<sub>2</sub>)eOP(O)[O(CH<sub>2</sub>)e-adamantyl]O, peptide, polypeptide, NH(CO)CHR<sub>1</sub>NH(CO)CHR<sub>1</sub>NH; R<sub>1</sub> is (CH<sub>2</sub>)aCO<sub>2</sub>H, (CH<sub>2</sub>)aCONH<sub>2</sub>; PEG is O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>z</sub>; where z is 2-500; L is H, NH<sub>2</sub>, NH(CO)(CH<sub>2</sub>)e(CO)CH<sub>2</sub>, SO<sub>2</sub>CH:CH<sub>2</sub>, SS, CO<sub>2</sub>, carbohydrate residue; a is 0-1, b is 0-1; d is 0-6; e is 1-6; yr is 0-1, x is 0-1, and a therapeutic agent. The composition also contains a complexing agent. The polymer interacts with the complexing agent in a host-guest or a guest-host interaction to form an inclusion complex. A therapeutic composition of the invention may be used to deliver the therapeutic agent and to treat various disorders. Both the polymer of the particulate composite and the complexing agent may be used to introduce functionality into the therapeutic composition. The invention also relates to a method of preparing a composition. The method combines a therapeutic agent, a polymer having host or guest functionality, and a complexing agent having guest or host functionality to form the therapeutic composition. The complexing agent forms an inclusion complex with the polymer. The invention also relates to a method of delivering a therapeutic agent. According to the method, a therapeutically effective amount of a therapeutic composition of the invention

is

administered to a mammal (e.g. human or animal) in recognized need of the therapeutic.

IC ICM A61K047-48

CC 35-8 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 6, 33, 34, 63

IT 57-88-5DP, Cholesterol, inclusion complexes 91-20-3DP, Naphthalene, inclusion complexes 281-23-2DP, Adamantane, inclusion complexes 2292-79-7DP, inclusion complexes 26282-59-7DP, cyclodextrin thioethers 81644-55-5DP, polyethoxylated ether derivs. 107658-43-5DP, adamantane-modified 254912-05-5P **254912-07-7P** 254912-09-9P 264257-54-7DP, reaction products with polymeric cyclodextrin thioamidoamides **275354-52-4P** 275354-53-5DP, lactosylamine adducts 275354-54-6P 438490-85-8P 438490-87-0DP, adducts with lactose 438490-89-2DP, fluorescein derivs. 438490-89-2P 438490-90-5P 438490-95-0DP, human transferrin bound  
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of adamantylpolyethylene glycol containing sugar and peptide residues and inclusion complexes as therapeutic agents)

IT 29390-66-7P 35625-91-3P 67217-55-4P 73499-21-5P 76700-72-6P  
 81644-55-5P 98126-99-9P 101652-40-8P 107658-43-5P 159790-69-9P  
 162825-08-3P **254912-04-4P** 275354-53-5P 275354-55-7P  
 438490-86-9P 438490-87-0P 438490-92-7P 438490-93-8P 438490-95-0P  
 438490-96-1P 438490-98-3P 438490-99-4P 438491-00-0P 438491-01-1P  
 438491-02-2P 438491-03-3P 438491-04-4P 438491-05-5P 438491-06-6P  
 438491-07-7P 438491-08-8P 438491-09-9P 438491-10-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of adamantylpolyethylene glycol containing sugar and peptide residues and inclusion complexes as therapeutic agents)

IT **254912-07-7P 275354-52-4P**  
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

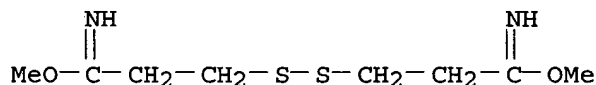
(preparation of adamantylpolyethylene glycol containing sugar and peptide residues and inclusion complexes as therapeutic agents)

RN 254912-07-7 HCAPLUS  
 CN  $\beta$ -Cyclodextrin, 6A,6D-diamino-6A,6D-dideoxy-, carbonate (1:2), polymer with dimethyl 3,3'-dithiobis[propanimidate] dihydrochloride (9CI) (CA INDEX NAME)

CM 1

CRN 38285-78-8

CMF C8 H16 N2 O2 S2 . 2 Cl H



● 2 HCl

CM 2

CRN 254912-03-3

CMF C42 H72 N2 O33 . 2 C H2 O3

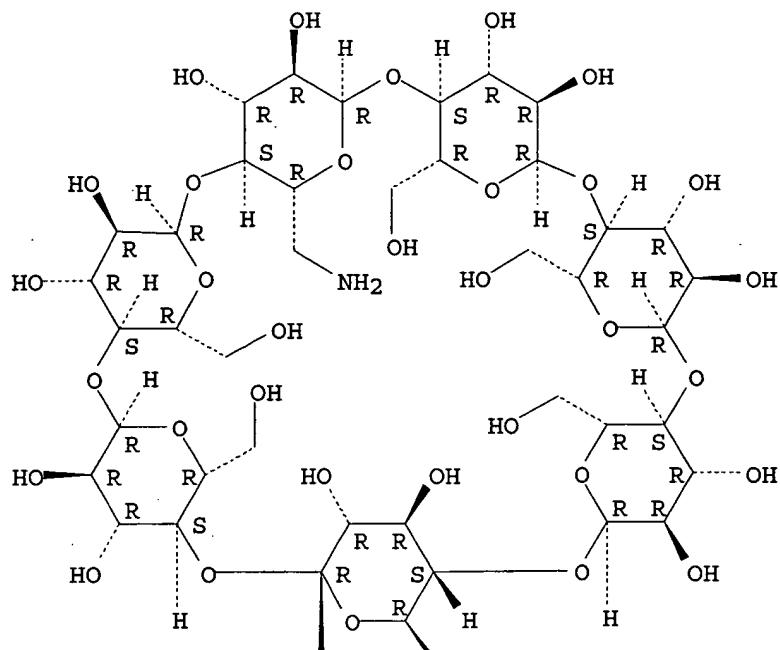
CM 3

CRN 162825-08-3

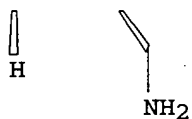
CMF C42 H72 N2 O33

Absolute stereochemistry.

PAGE 1-A



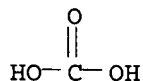
PAGE 2-A



CM 4

CRN 463-79-6

CMF C H2 O3



RN 275354-52-4 HCAPLUS

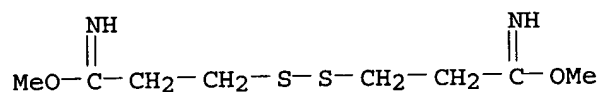
CN  $\beta$ -Cyclodextrin, 6A,6D-bis-S-(2-aminoethyl)-6A,6D-dithio-, carbonate (1:2) (salt), polymer with dimethyl 3,3'-dithiobis[propanimidate]

dihydrochloride (9CI) (CA INDEX NAME).

CM 1

CRN 38285-78-8

CMF C8 H16 N2 O2 S2 . 2 Cl H



● 2 HCl

CM 2

CRN 275354-51-3

CMF C46 H80 N2 O33 S2 . 2 C H2 O3

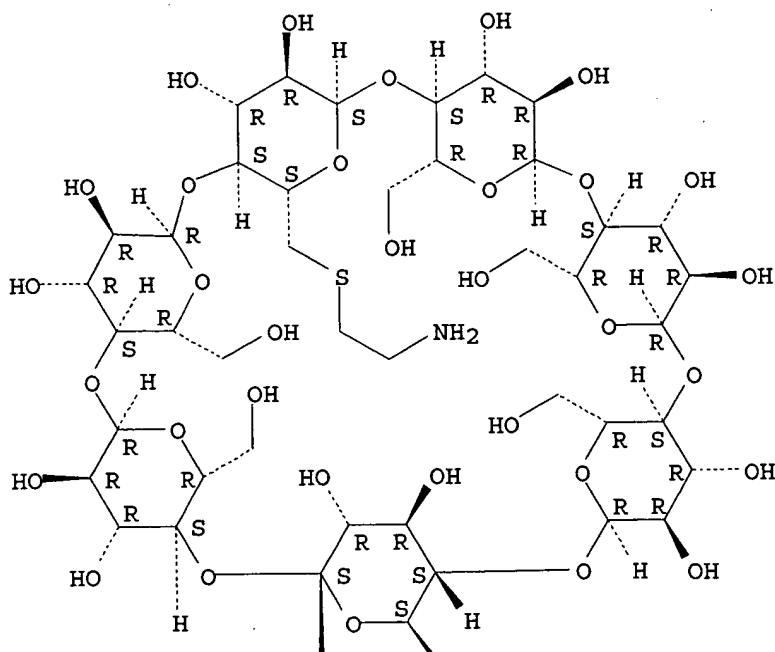
CM 3

CRN 101652-40-8

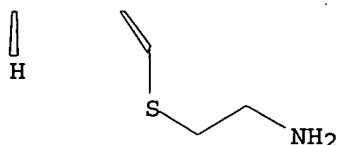
CMF C46 H80 N2 O33 S2

Absolute stereochemistry.

PAGE 1-A



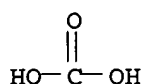
PAGE 2-A



CM 4

CRN 463-79-6

CMF C H2 O3



IT 254912-04-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of adamantylpolyethylene glycol containing sugar and peptide residues and inclusion complexes as therapeutic agents)

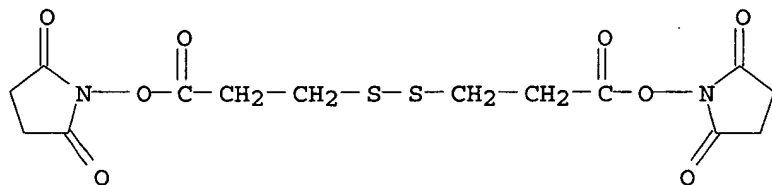
RN 254912-04-4 HCAPLUS

CN  $\beta$ -Cyclodextrin, 6A,6D-diamino-6A,6D-dideoxy-, carbonate (1:2), polymer with 1,1'-[dithiobis[(1-oxo-3,1-propanediyl)oxy]]bis[2,5-pyrrolidinedione] (9CI) (CA INDEX NAME)

CM 1

CRN 57757-57-0

CMF C14 H16 N2 O8 S2



CM 2

CRN 254912-03-3

CMF C42 H72 N2 O33 . 2 C H2 O3

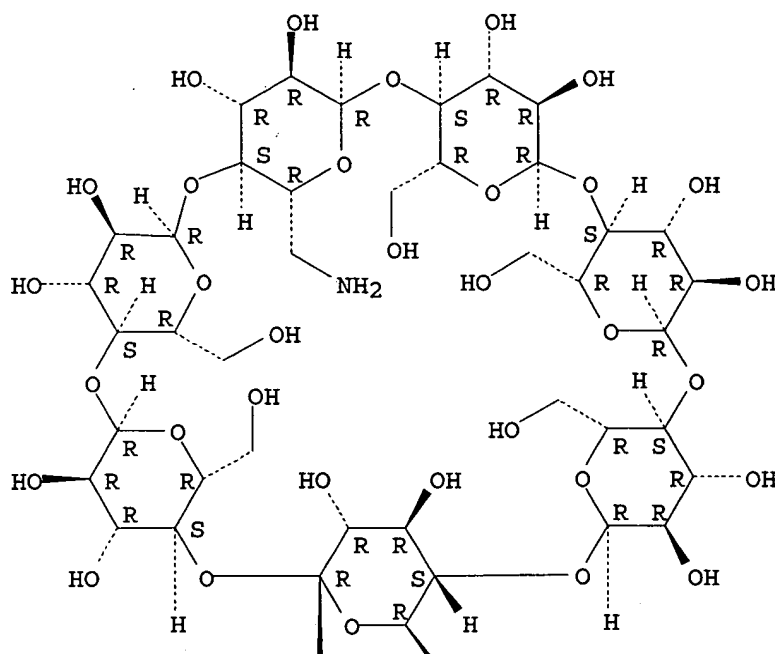
CM 3

CRN 162825-08-3

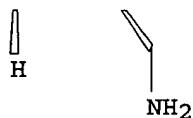
CMF C42 H72 N2 O33

Absolute stereochemistry.

PAGE 1-A



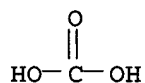
PAGE 2-A



CM 4

CRN 463-79-6

CMF C H2 O3



L57 ANSWER 15 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:162760 HCAPLUS

DOCUMENT NUMBER: 135:154293

TITLE: Iodine L-edge XAFS study of linear polyiodide chains in amylose and  $\alpha$ -cyclodextrin

AUTHOR(S): Konishi, Takehisa; Tanaka, Wakana; Kawai, Takeshi; Fujikawa, Takashi

CORPORATE SOURCE: Department of Chemistry, Chiba University, Inage, Chiba, 263-8522, Japan

SOURCE: Journal of Synchrotron Radiation (2001), 8(2), 737-739  
CODEN: JSYRES; ISSN: 0909-0495  
PUBLISHER: Munksgaard International Publishers Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Iodine L-edge XAFS measurements were performed on blue-black amylose (I)-I complex to obtain information about the electronic and geometrical structures of polyiodide chains included in the I helix. Measurements were also carried out on the crystalline  $\alpha$ -cyclodextrin-I complex ( $\alpha$ -cyclodextrin) $2\text{Cd}0.5\text{I}5.27\text{H}_2\text{O}$ , in which the polyiodide chain is known to consist of  $\text{I}_5^-$  units. It was shown that the XANES spectra of these complexes have similar line shapes, except for some minor differences, indicating that there are close similarities in the nature of polyiodide chains in these complexes. Besides their similarity, difference in the intensity of the peak at the L1 absorption edge was observed. Its implication for the electronic and geometrical structures is also discussed.

CC 44-6 (Industrial Carbohydrates)

IT 7553-56-2D, Iodine, complexes with amylose and cyclodextrin, properties  
9005-82-7D, Amylose, iodine complexes 10016-20-3D,  
 $\alpha$ -Cyclodextrin, iodine complexes

RL: PRP (Properties)

(iodine L-edge XAFS study of linear polyiodide chains in amylose and  $\alpha$ -cyclodextrin)

IT 10016-20-3D,  $\alpha$ -Cyclodextrin, iodine complexes

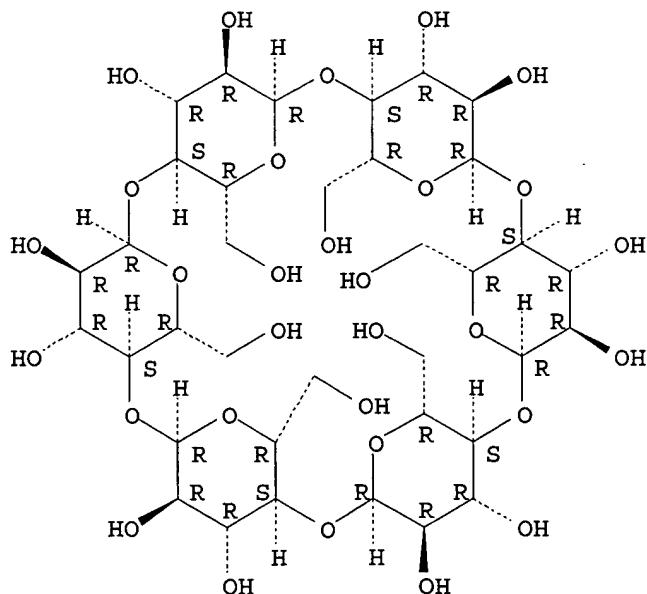
RL: PRP (Properties)

(iodine L-edge XAFS study of linear polyiodide chains in amylose and  $\alpha$ -cyclodextrin)

RN 10016-20-3 HCAPLUS

CN  $\alpha$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



L57 ANSWER 16 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:601 HCAPLUS

DOCUMENT NUMBER: 134:238094

TITLE: Temperature dependence of inclusion-dissociation behavior between molecular nanotubes and linear polymers

AUTHOR(S): Saito, Makoto; Shimomura, Takeshi; Okumura, Yasushi; Ito, Kohzo; Hayakawa, Reinosuke

CORPORATE SOURCE: Department of Advanced Materials Science, Graduate School of Frontier Sciences, University of Tokyo, Hongo, Bunkyo-ku, Tokyo, 113-8656, Japan

SOURCE: Journal of Chemical Physics (2001), 114(1), 1-3

CODEN: JCPSA6; ISSN: 0021-9606

PUBLISHER: American Institute of Physics

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The inclusion-dissociation behavior between mol. nanotubes and linear polymers was investigated in solns. by measuring the induced CD of the mixture of the mol. nanotubes, which are composed of  $\alpha$ -cyclodextrins linked by 3 crosslinking bridges, and poly(ethylene glycol) modified with azobenzene. The inclusion complex between the nanotubes and the linear polymers was formed at room temperature, and the polymers were dissociated from the nanotubes

with increasing temperature, as expected theor.

CC 36-6 (Physical Properties of Synthetic High Polymers)

IT 330460-36-1P

RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(temperature dependence of inclusion-dissociation behavior between mol. nanotubes and linear polymers)

IT 330460-36-1P

RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(temperature dependence of inclusion-dissociation behavior between mol. nanotubes and linear polymers)

RN 330460-36-1 HCAPLUS

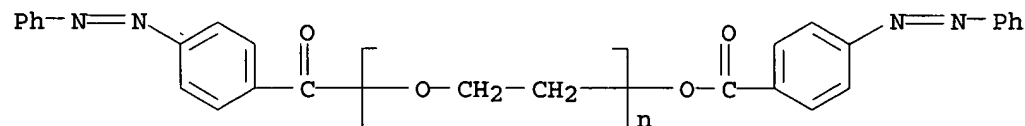
CN  $\alpha$ -Cyclodextrin, polymer with (chloromethyl)oxirane, rotaxane compd. with  $\alpha$ -[2-[(2,4-dinitrophenyl)amino]ethyl]- $\omega$ -[2-[(2,4-dinitrophenyl)amino]ethoxy]poly(oxy-1,2-ethanediyl), compd. with  $\alpha$ -[4-(phenylazo)benzoyl]- $\omega$ -[[4-(phenylazo)benzoyl]oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 59751-01-8

CMF (C2 H4 O)<sub>n</sub> C26 H18 N4 O3

CCI PMS



CM 2

CRN 152052-90-9

CMF (C36 H60 O30 . C3 H5 Cl O)x . x (C2 H4 O)n C16 H16 N6 O9

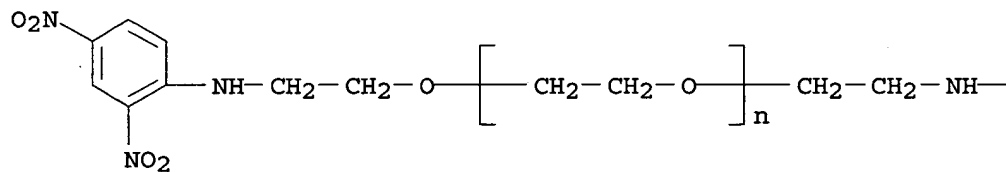
CM 3

CRN 141682-39-5

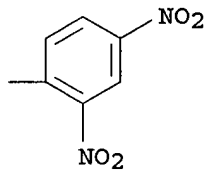
CMF (C2 H4 O)n C16 H16 N6 O9

CCI PMS

PAGE 1-A



PAGE 1-B



CM 4

CRN 25916-38-5

CMF (C36 H60 O30 . C3 H5 Cl O)x

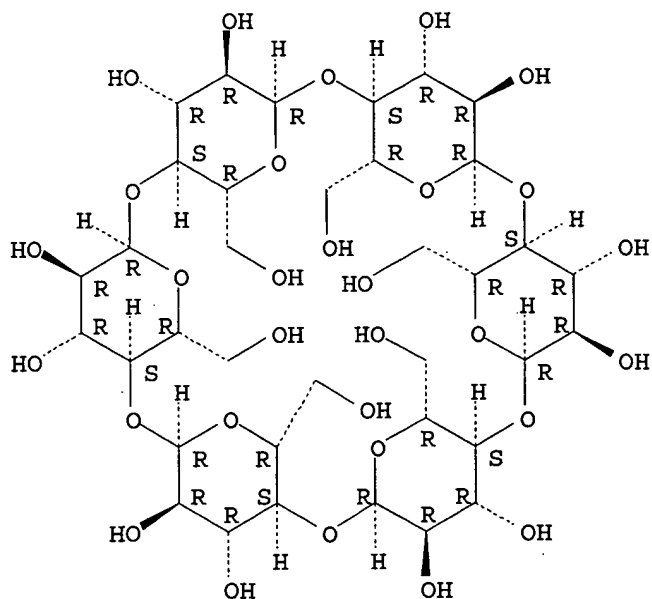
CCI PMS

CM 5

CRN 10016-20-3

CMF C36 H60 O30

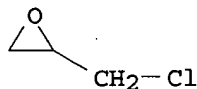
Absolute stereochemistry.



CM 6

CRN 106-89-8

CMF C3 H5 Cl O



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 17 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:846534 HCAPLUS

DOCUMENT NUMBER: 134:101265

TITLE: Theory on inclusion behavior between cyclodextrin molecules and linear polymer chains in solutions

AUTHOR(S): Okumura, Yasushi; Ito, Kohzo; Hayakawa, Reinosuke

CORPORATE SOURCE: Department of Applied Physics, Graduate School of Engineering, University of Tokyo, Tokyo, 113-8656, Japan

SOURCE: Polymers for Advanced Technologies (2000), 11(8-12), 815-819

CODEN: PADTE5; ISSN: 1042-7147

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The inclusion-dissociation behavior in the complex formation between cyclodextrin mols. and linear polymer chains in solution is theor. investigated by using a lattice model. The cyclodextrins cooperatively include or dissociate the linear polymer chain when the interaction energy between the adjacent cyclodextrins is strong.

CC 35-8 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 36

IT 12619-70-4, Cyclodextrin  
RL: PRP (Properties)  
(inclusion compds. with **linear polymer**; theory on  
inclusion behavior between cyclodextrin mols. and **linear  
polymer** chains in solns.)  
IT 12619-70-4, Cyclodextrin  
RL: PRP (Properties)  
(inclusion compds. with **linear polymer**; theory on  
inclusion behavior between cyclodextrin mols. and **linear  
polymer** chains in solns.)  
RN 12619-70-4 HCAPLUS  
CN Cyclodextrin (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 18 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:578854 HCAPLUS

DOCUMENT NUMBER: 133:322058

TITLE: Synthesis of a linear polymer with pendent  
 $\gamma$ -cyclodextrins

AUTHOR(S): Ruebner, Anja; Statton, Gary L.; James, Mike R.

CORPORATE SOURCE: MACH I Inc., King of Prussia, PA, 19406, USA

SOURCE: Macromolecular Chemistry and Physics (2000), 201(11),  
1185-1188

CODEN: MCHPES; ISSN: 1022-1352

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The synthesis of a linear polymer with pendent  $\gamma$ -cyclodextrins based  
on polyallylamine (PAA), a com. available linear polymer, is described.  
After the reaction of the PAA with mono-functionalized  
 $\gamma$ -cyclodextrin derivs., linear polymers with pendent  
 $\gamma$ -cyclodextrins were obtained. One compound was less H<sub>2</sub>O-soluble than  
the starting materials. By masking the remaining unreacted amines, an  
uncharged, highly H<sub>2</sub>O-soluble polymer was obtained.

CC 33-4 (Carbohydrates)

IT 17465-86-0DP,  $\gamma$ -Cyclodextrin, mono-p-toluenesulfonyl derivative,  
carboxymethyl ether 30551-89-4DP, Polyallylamine, reaction products with  
cyclodextrin tosylate

RL: SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of a **linear polymer** with pendent  
 $\gamma$ -cyclodextrins)

IT 17465-86-0,  $\gamma$ -Cyclodextrin

RL: RCT (Reactant); RACT (Reactant or reagent)  
(tosylation and coupling with **poly**(allylamine); synthesis of  
a **linear polymer** with pendent  $\gamma$ -  
cyclodextrins)

IT 17465-86-0DP,  $\gamma$ -Cyclodextrin, mono-p-toluenesulfonyl derivative,  
carboxymethyl ether

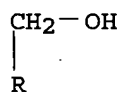
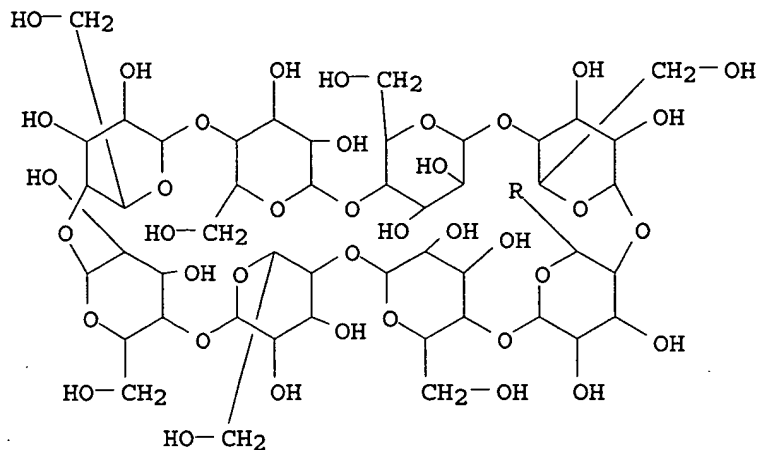
RL: SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of a **linear polymer** with pendent  
 $\gamma$ -cyclodextrins)

RN 17465-86-0 HCAPLUS

CN  $\gamma$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

*Too Noisy*

*Q D281.176 m2*

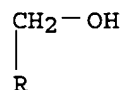
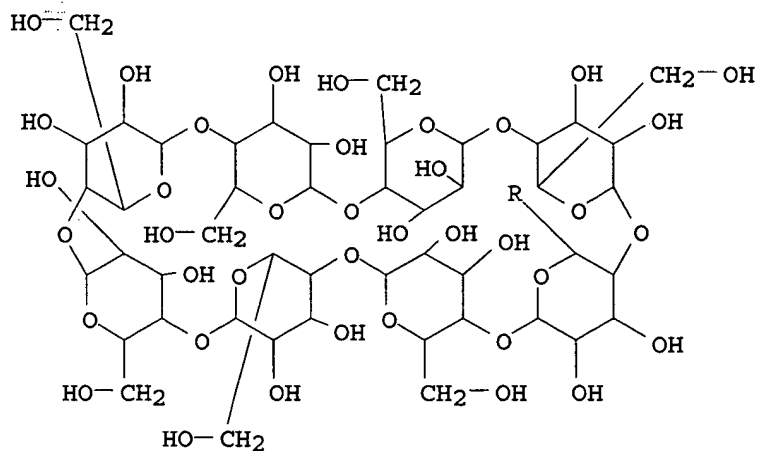


IT 17465-86-0,  $\gamma$ -Cyclodextrin

RL: RCT (Reactant); RACT (Reactant or reagent)  
(tosylation and coupling with poly(allylamine); synthesis of  
a linear polymer with pendent  $\gamma$ -  
cyclodextrins)

RN 17465-86-0 HCAPLUS

CN  $\gamma$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT:

12

THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 19 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2000:401687 HCAPLUS  
 DOCUMENT NUMBER: 133:48948  
 TITLE: Supramolecular complexes containing therapeutic agents  
 INVENTOR(S): Davis, Mark E; Gonzalez, Hector; Hwang, Suzie  
 PATENT ASSIGNEE(S): California Institute of Technology, USA  
 SOURCE: PCT Int. Appl., 70 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE  
 -----  
 WO 2000033885 A1 20000615 WO 1999-US28547 19991203  
 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,  
 CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,  
 IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,  
 MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,  
 SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,  
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 EP 1133318 A1 20010919 EP 1999-965967 19991203  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO  
 JP 2002531530 T2 20020924 JP 2000-586375 19991203  
 PRIORITY APPLN. INFO.: US 1998-110847P P 19981204  
 US 1999-127856P P 19990405  
 WO 1999-US28547 W 19991203

AB A method of preparing a supramol. complex containing at least one therapeutic agent and a multi-dimensional polymer network is described. A supramol. complex prepared by a method of the invention is described. A method of treatment by administering a therapeutically effective amount of a supramol. complex of the invention is also described. Such a supramol. complex may be used as a delivery vehicle for various therapeutic agents. The polymers include linear or branched polyethyleneimine and cyclodextrin derivs.

IC ICM A61K047-48

ICS A61K031-335; A61K031-70

CC 63-6 (Pharmaceuticals)

IT 9002-98-6DP, Polyethylenimine, reaction product with  $\beta$ -cyclodextrinethiol and functionalized PEG 25322-68-3DP, PEG, reaction product with  $\beta$ -cyclodextrinethiol and polyethylenimine 29390-66-7P  
 35625-91-3P 39927-08-7P 52539-19-2P 67217-55-4P 73499-21-5P  
 76700-72-6P 81644-55-5DP, reaction product with functionalized PEG and polyethylenimine 81644-55-5P 98126-99-9P 101652-40-8P 254912-03-3P  
 254912-04-4P 254912-05-5DP, oxidized 254912-05-5P  
 254912-07-7P 254912-09-9P 275354-50-2P  
 275354-52-4DP, reaction products with DNA 275354-53-5P  
 275354-54-6P 275354-55-7P 275354-57-9P 275354-58-0P 275354-59-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of supramol. complexes containing therapeutic agents)

IT 254912-04-4P 254912-07-7P 275354-50-2P  
 275354-52-4DP, reaction products with DNA

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(preparation of supramol. complexes containing therapeutic agents)

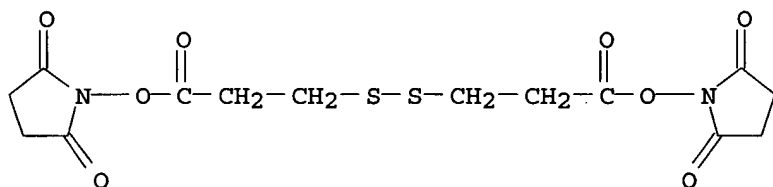
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CN  $\beta$ -Cyclodextrin, 6A,6D-diamino-6A,6D-dideoxy-, carbonate (1:2),  
polymer with 1,1'-[dithiobis[(1-oxo-3,1-propanediyl)oxy]]bis[2,5-  
pyrrolidinedione] (9CI) (CA INDEX NAME)

CM 1

CRN 57757-57-0

CMF C14 H16 N2 O8 S2



CM 2

CRN 254912-03-3

CMF C42 H72 N2 O33 . 2 C H2 O3

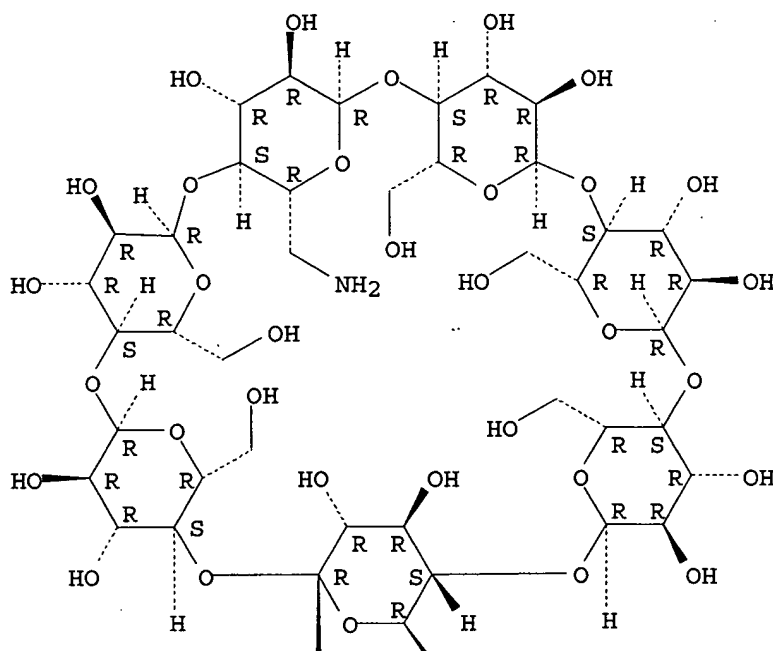
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CRN 162825-08-3

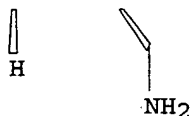
CMF C42 H72 N2 O33

Absolute stereochemistry.

PAGE 1-A



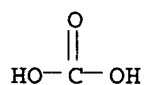
PAGE 2-A



CM 4

CRN 463-79-6

CMF C H2 O3



RN 254912-07-7 HCAPLUS

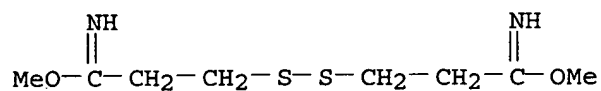
CN  $\beta$ -Cyclodextrin, 6A,6D-diamino-6A,6D-dideoxy-, carbonate (1:2),  
polymer with dimethyl 3,3'-dithiobis[propanimidate] dihydrochloride (9CI)  
(CA INDEX NAME)

CM 1

CRN 38285-78-8

CMF C8 H16 N2 O2 S2 . 2 Cl H





● 2 HCl

CM 2

CRN 254912-03-3

CMF C42 H72 N2 O33 . 2 C H2 O3

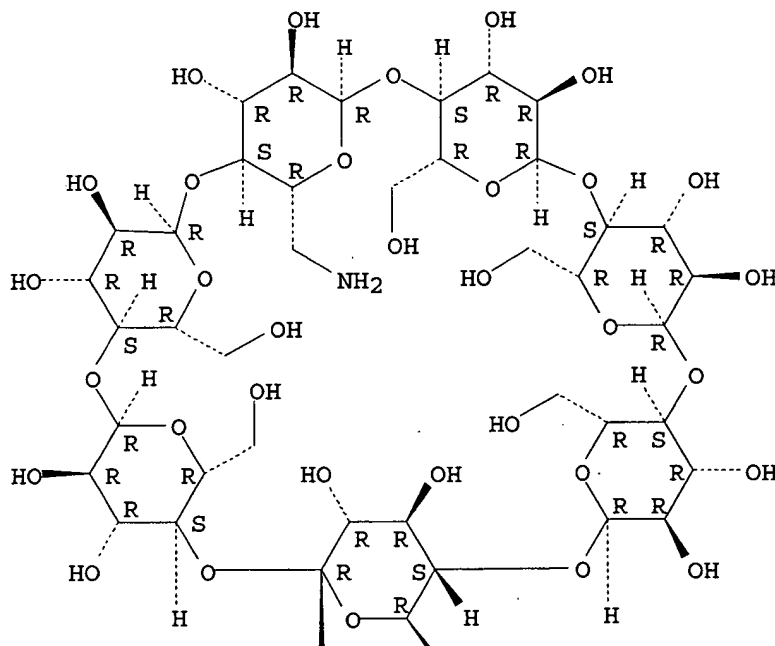
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CRN 162825-08-3

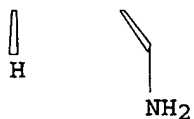
CMF C42 H72 N2 O33

Absolute stereochemistry.

PAGE 1-A



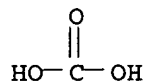
PAGE 2-A



CM 4

CRN 463-79-6

CMF C H2 O3



RN 275354-50-2 HCAPLUS

CN  $\beta$ -Cyclodextrin, 2A,3A-diamino-2A,3A-dideoxy-, polymer with  
 1,1'-[dithiobis[(1-oxo-3,1-propanediyl)oxy]]bis[2,5-pyrrolidinedione]  
 (9CI) (CA INDEX NAME)

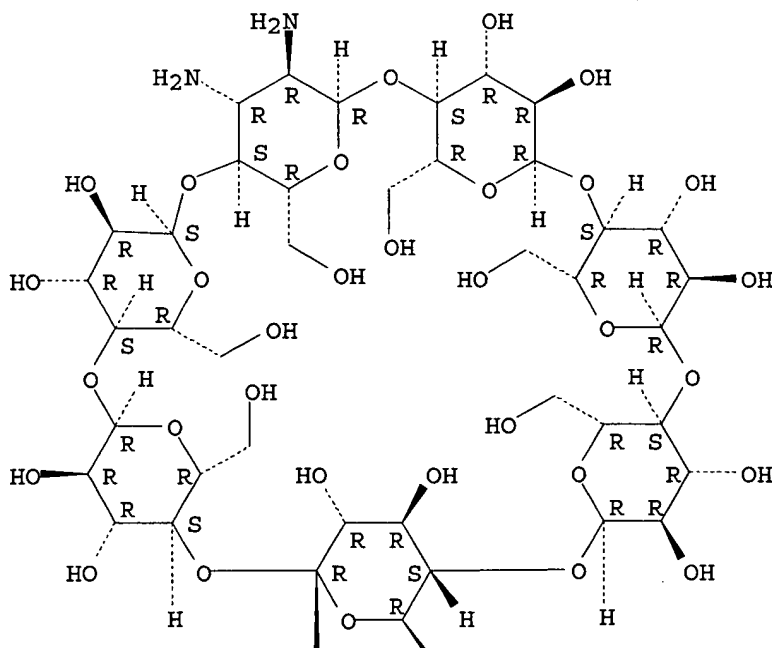
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CRN 275354-49-9

CMF C42 H72 N2 O33

Absolute stereochemistry.

PAGE 1-A



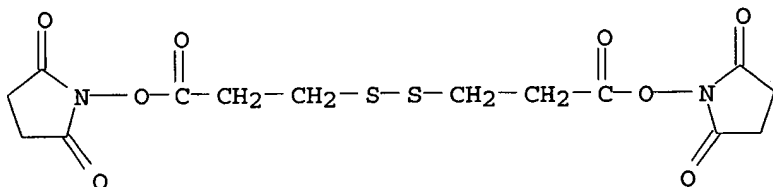
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CM 2

CRN 57757-57-0

CMF C14 H16 N2 O8 S2



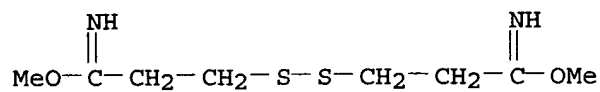
RN 275354-52-4 HCAPLUS

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(1:2) (salt), polymer with dimethyl 3,3'-dithiobis[propanimidate]  
dihydrochloride (9CI) (CA INDEX NAME)

CM 1

CRN 38285-78-8

CMF C8 H16 N2 O2 S2 . 2 Cl H



● 2 HCl

CM 2

CRN 275354-51-3

CMF C46 H80 N2 O33 S2 . 2 C H2 O3

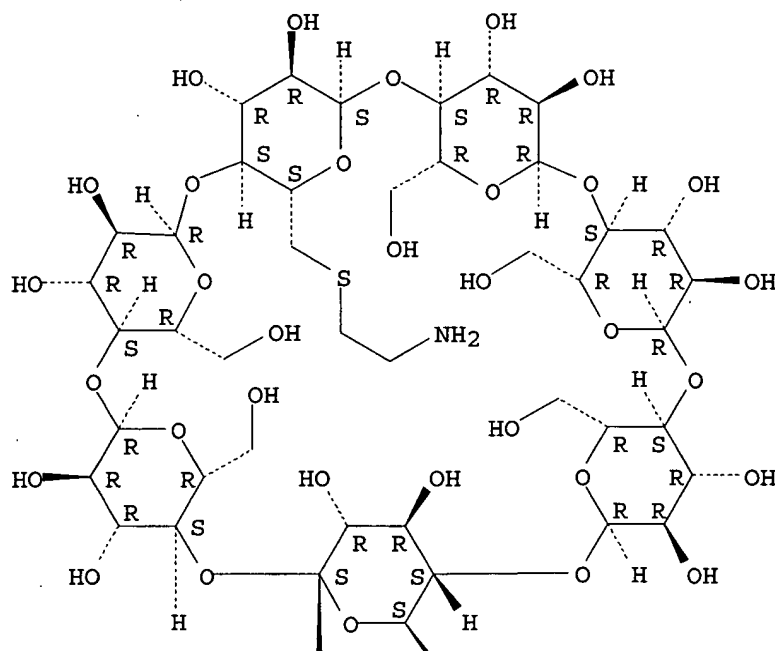
CM 3

CRN 101652-40-8

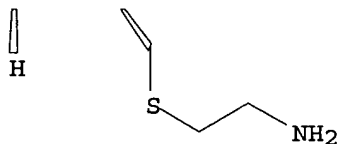
CMF C46 H80 N2 O33 S2

Absolute stereochemistry.

PAGE 1-A



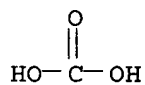
PAGE 2-A



CM 4

CRN 463-79-6

CMF C H2 O3



REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 20 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:34909 HCAPLUS

DOCUMENT NUMBER: 132:94914

TITLE: Preparation of linear cyclodextrin copolymers

INVENTOR(S): Gonzalez, Hector; Hwang, Suzie Sue Jean; Davis, Mark E.

PATENT ASSIGNEE(S): California Institute of Technology, USA  
SOURCE: PCT Int. Appl., 84 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000001734	A1	20000113	WO 1999-US14298	19990625
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6509323	B1	20030121	US 1998-203556	19981202
CA 2336390	AA	20000113	CA 1999-2336390	19990625
AU 9948305	A1	20000124	AU 1999-48305	19990625
AU 763114	B2	20030710		
EP 1093469	A1	20010425	EP 1999-931889	19990625
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9911754	A	20011106	BR 1999-11754	19990625
JP 2002519482	T2	20020702	JP 2000-558134	19990625
US 2002151523	A1	20021017	US 2002-97326	20020315

## PRIORITY APPLN. INFO.:

US 1998-91550P P 19980701  
US 1998-203556 A 19981202  
US 1999-339818 A3 19990625  
WO 1999-US14298 W 19990625

AB Linear cyclodextrin copolymers containing an unoxidized and/or an oxidized cyclodextrin moiety integrated into the polymer backbone, useful as drug delivery vehicles, were prepared. For example, substitution reaction of 6A,6D-diiodo-6A,6D-deoxy- $\beta$ -cyclodextrin (2-step preparation by a known procedure given) with NaSCH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub> gave 79% 6A,6D-bis(2-aminoethylthio)-6A,6D-deoxy- $\beta$ -cyclodextrin. This was stirred for 18 h at 80° in DMF under N with an equiv of MeOC(:NH)(CH<sub>2</sub>)<sub>6</sub>C(:NH)OMe-2HCl in the presence of Et<sub>3</sub>N to give 18% of a title copolymer (CD copolymer). Media containing doxorubicin and CD copolymer-doxorubicin complex (general complexation procedure given) were applied to cultured cell lines to show no toxicity to KB or KB-VI cell lines in the absence of doxorubicin.

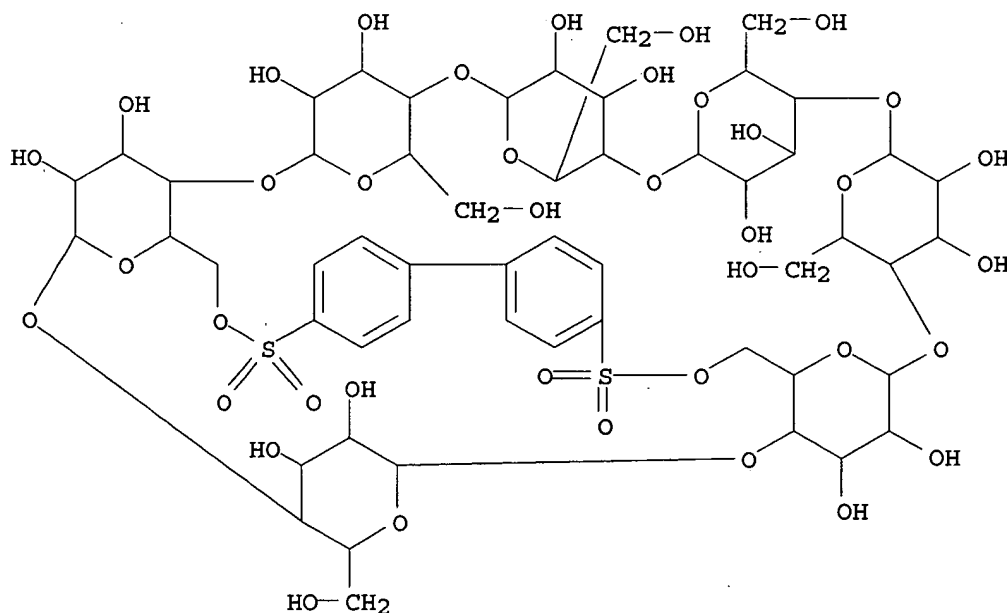
IC ICM C08B037-16  
ICS C08G081-00; C08G069-00; C08G069-40; C08G073-02; C08G073-06; C08G075-00; A61K047-40

CC 44-6 (Industrial Carbohydrates)  
Section cross-reference(s): 63

IT 91190-86-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and conversion to diodo derivative; preparation of linear cyclodextrin copolymers as drug delivery agents)

IT 101652-40-8P 254912-03-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and copolymer.; preparation of linear

- cyclodextrin copolymers as drug delivery agents)
- IT 98126-99-9P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and redn to diamine; preparation of **linear cyclodextrin copolymers** as drug delivery agents)
- IT 76700-72-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and substitution with sodium azide; preparation of **linear cyclodextrin copolymers** as drug delivery agents)
- IT 254912-04-4P 254912-05-5DP, oxidized  
 254912-05-5P 254912-07-7P 254912-08-8P  
 254912-09-9P 254912-10-2P 254912-11-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of **linear cyclodextrin copolymers** as drug delivery agents)
- IT 7585-39-9,  $\beta$ -Cyclodextrin  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction with biphenyldisulfonyl dichloride; preparation of **linear cyclodextrin copolymers** as drug delivery agents)
- IT 91190-86-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and conversion to diodo derivative; preparation of **linear cyclodextrin copolymers** as drug delivery agents)
- RN 91190-86-2 HCAPLUS  
 CN  $\beta$ -Cyclodextrin, cyclic 6A,6C-[1,1'-biphenyl]-4,4'-disulfonate (9CI)  
 (CA INDEX NAME)



- IT 101652-40-8P 254912-03-3P  
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 (preparation and **copolymn.**; preparation of **linear**

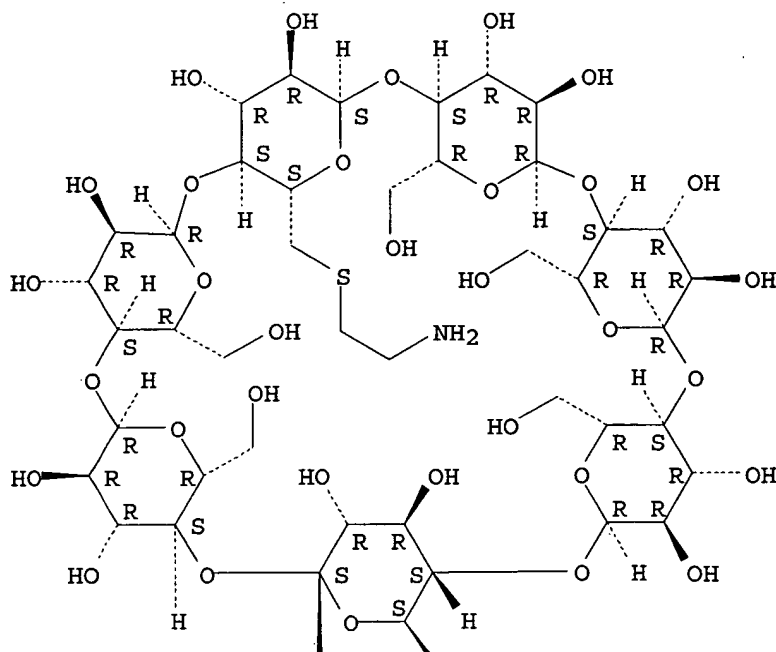
cyclodextrin copolymers as drug delivery agents)

RN 101652-40-8 HCAPLUS

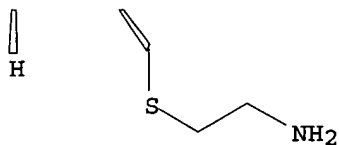
CN  $\beta$ -Cyclodextrin, 6A,6D-bis-S-(2-aminoethyl)-6A,6D-dithio- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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PAGE 2-A



RN 254912-03-3 HCAPLUS

CN  $\beta$ -Cyclodextrin, 6A,6D-diamino-6A,6D-dideoxy-, carbonate (1:2) (9CI) (CA INDEX NAME)

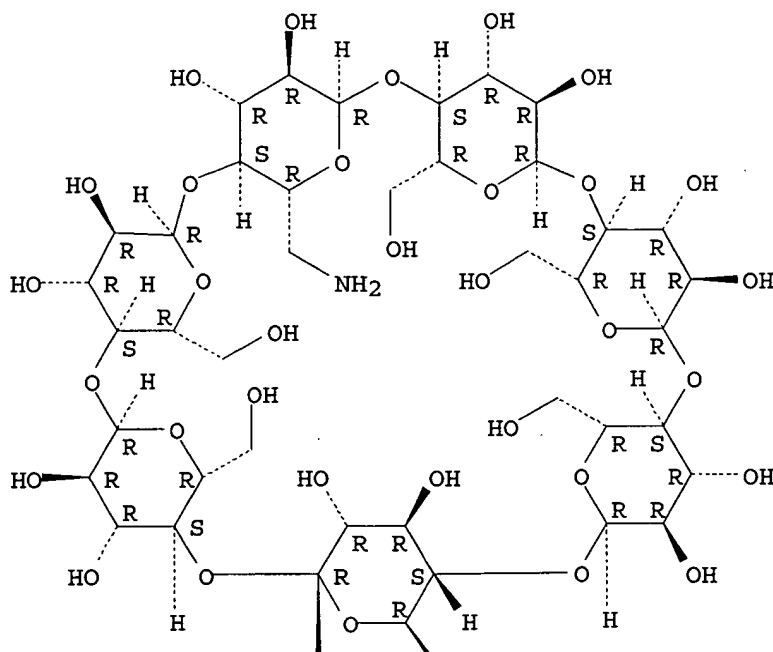
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CRN 162825-08-3

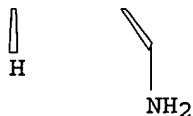
CMF C42 H72 N2 O33

Absolute stereochemistry.

PAGE 1-A



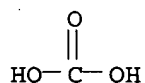
PAGE 2-A



CM 2

CRN 463-79-6

CMF C H2 O3



IT 98126-99-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and redn to diamine; preparation of **linear cyclodextrin copolymers** as drug delivery agents)

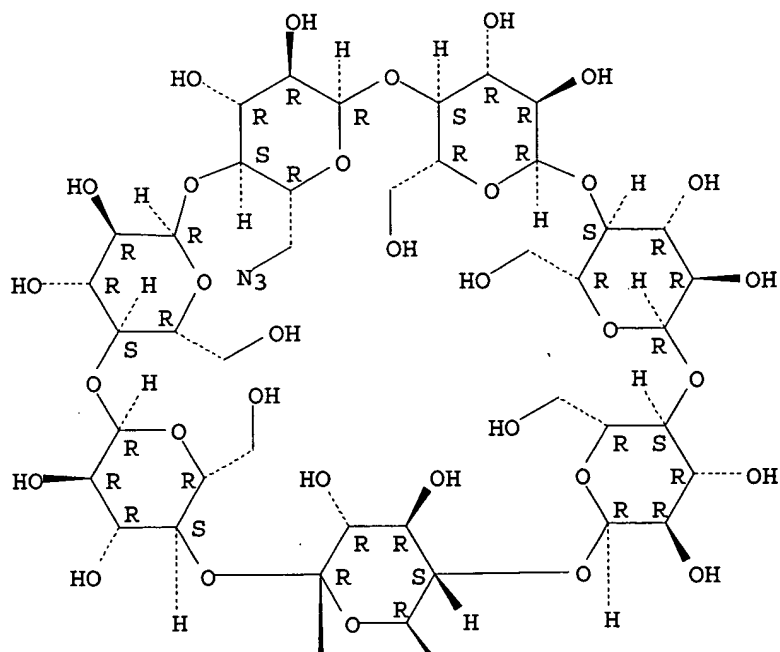
RN 98126-99-9 HCAPLUS

CN  $\beta$ -Cyclodextrin, 6A,6D-diazido-6A,6D-dideoxy- (9CI) (CA INDEX NAME)

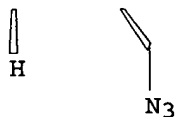
Absolute stereochemistry.



PAGE 1-A



PAGE 2-A



IT 76700-72-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

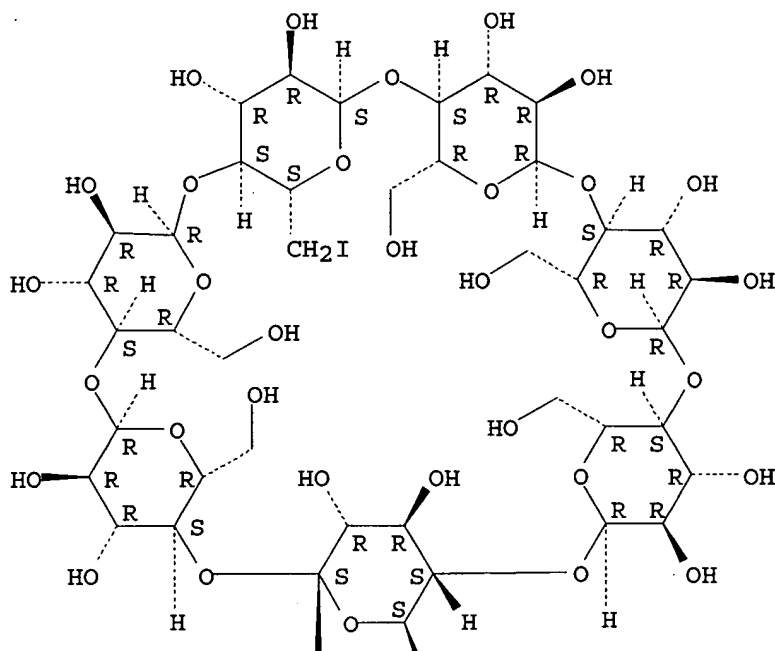
(preparation and substitution with sodium azide; preparation of **linear cyclodextrin copolymers** as drug delivery agents)

RN 76700-72-6 HCAPLUS

CN  $\beta$ -Cyclodextrin, 6A,6D-dideoxy-6A,6D-diiodo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

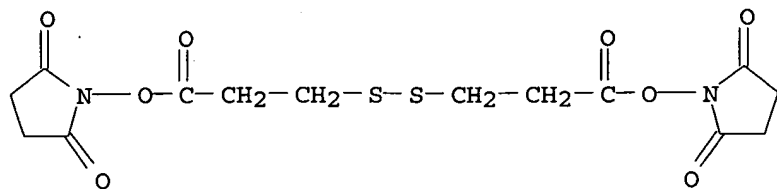
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PAGE 2-A



IT 254912-04-4P 254912-05-5DP, oxidized  
 254912-05-5P 254912-07-7P 254912-08-8P  
 254912-09-9P 254912-10-2P 254912-11-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of **linear cyclodextrin copolymers** as drug  
 delivery agents)  
 RN 254912-04-4 HCAPLUS  
 CN  $\beta$ -Cyclodextrin, 6A,6D-diamino-6A,6D-dideoxy-, carbonate (1:2),  
 polymer with 1,1'-[dithiobis[(1-oxo-3,1-propanediyl)oxy]]bis[2,5-  
 pyrrolidinedione] (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 57757-57-0  
 CMF C14 H16 N2 O8 S2



CM 2

CRN 254912-03-3

CMF C42 H72 N2 O33 . 2 C H2 O3

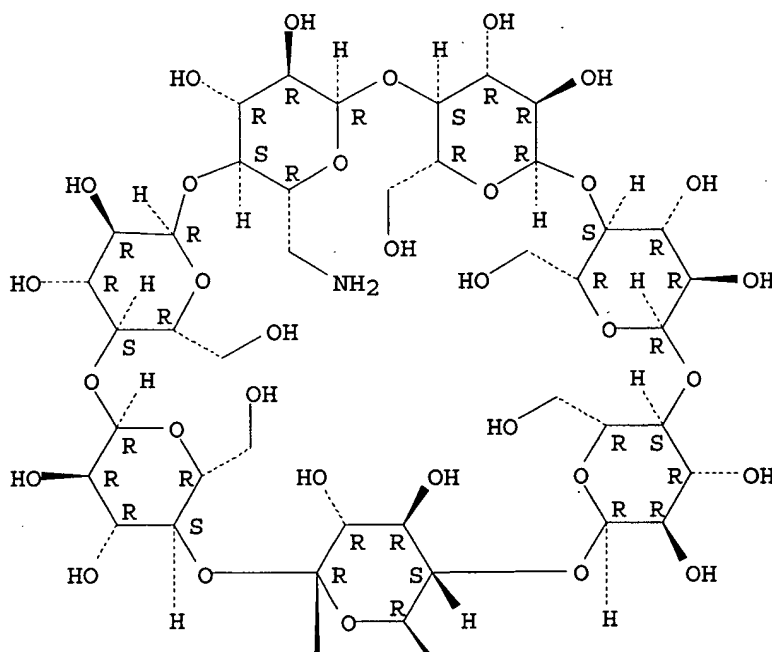
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CRN 162825-08-3

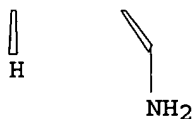
CMF C42 H72 N2 O33

Absolute stereochemistry.

PAGE 1-A



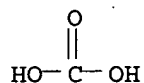
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CM 4

CRN 463-79-6

CMF C H2 O3



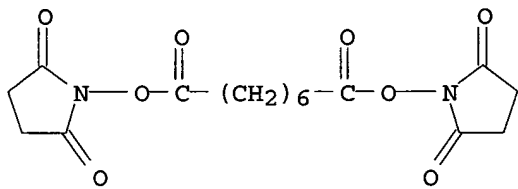
RN 254912-05-5 HCAPLUS

CN  $\beta$ -Cyclodextrin, 6A,6D-diamino-6A,6D-dideoxy-, carbonate (1:2),  
polymer with 1,1'-[(1,8-dioxo-1,8-octanediyl)bis(oxy)]bis[2,5-  
pyrrolidinedione] (9CI) (CA INDEX NAME)

CM 1

CRN 68528-80-3

CMF C16 H20 N2 O8



CM 2

CRN 254912-03-3

CMF C42 H72 N2 O33 . 2 C H2 O3

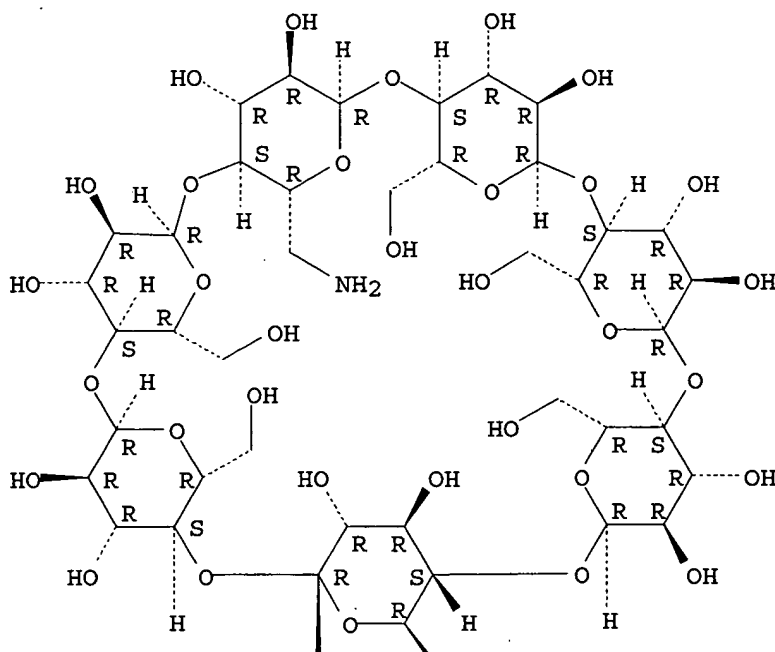
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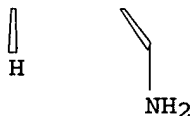
CMF C42 H72 N2 O33

Absolute stereochemistry.

PAGE 1-A



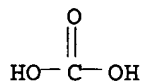
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CM 4

CRN 463-79-6

CMF C H2 O3



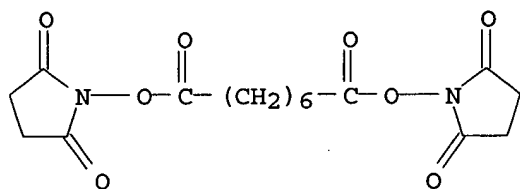
RN 254912-05-5 HCAPLUS

CN  $\beta$ -Cyclodextrin, 6A,6D-diamino-6A,6D-dideoxy-, carbonate (1:2),  
polymer with 1,1'-[(1,8-dioxo-1,8-octanediyl)bis(oxy)]bis[2,5-  
pyrrolidinedione] (9CI) (CA INDEX NAME)

CM 1

CRN 68528-80-3

CMF C16 H20 N2 O8



CM 2

CRN 254912-03-3

CMF C42 H72 N2 O33 . 2 C H2 O3

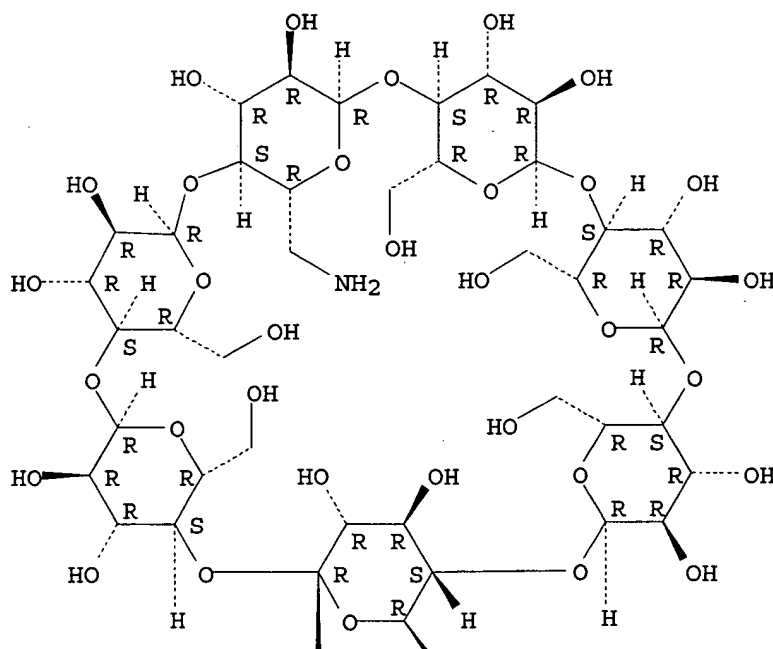
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CRN 162825-08-3

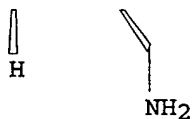
CMF C42 H72 N2 O33

Absolute stereochemistry.

PAGE 1-A



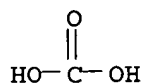
PAGE 2-A



CM 4

CRN 463-79-6

CMF C H2 O3



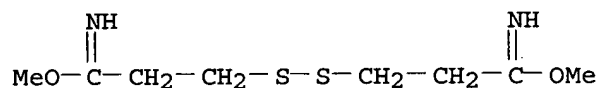
RN 254912-07-7 HCAPLUS

CN  $\beta$ -Cyclodextrin, 6A,6D-diamino-6A,6D-dideoxy-, carbonate (1:2),  
polymer with dimethyl 3,3'-dithiobis[propanimidate] dihydrochloride (9CI)  
(CA INDEX NAME)

CM 1

CRN 38285-78-8

CMF C8 H16 N2 O2 S2 . 2 Cl H



● 2 HCl

CM 2

CRN 254912-03-3

CMF C42 H72 N2 O33 . 2 C H2 O3

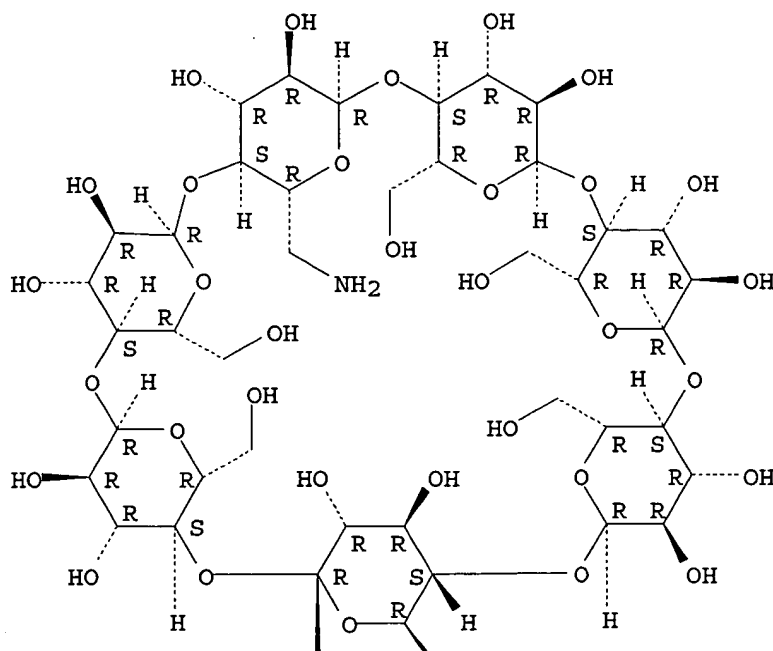
CM 3

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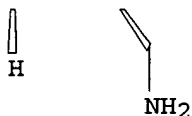
CMF C42 H72 N2 O33

Absolute stereochemistry.

PAGE 1-A



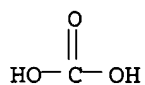
PAGE 2-A



CM 4

CRN 463-79-6

CMF C H2 O3



RN 254912-08-8 HCAPLUS

CN  $\beta$ -Cyclodextrin, 6A,6D-diazo-6A,6D-dideoxy-, polymer with  
2,2'-dithiobis[ethanamine] dihydrochloride (9CI) (CA INDEX NAME)

CM 1

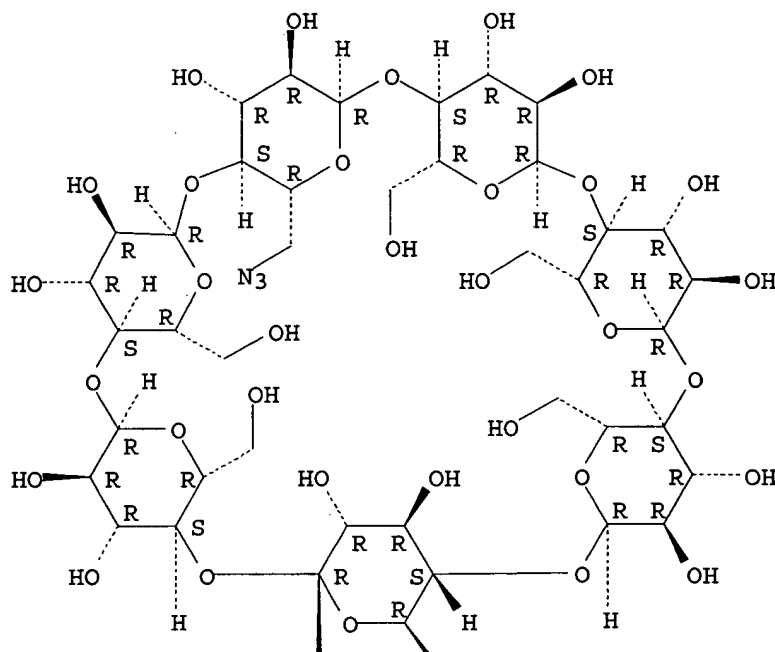
CRN 98126-99-9

CMF C42 H68 N6 O33

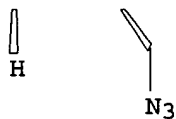
Absolute stereochemistry.



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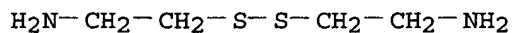
PAGE 2-A



CM 2

CRN 56-17-7

CMF C4 H12 N2 S2 . 2 Cl H



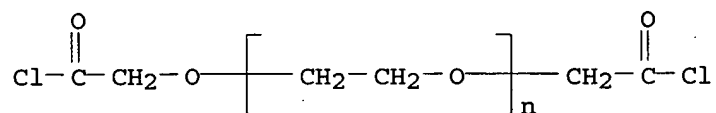
● 2 HCl

RN 254912-09-9 HCAPLUS

CN  $\beta$ -Cyclodextrin, 6A,6D-diamino-6A,6D-dideoxy-, carbonate (1:2),  
polymer with  $\alpha$ -(2-chloro-2-oxoethyl)- $\omega$ -(2-chloro-2-oxoethoxy)poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 35625-91-3  
 CMF (C2 H4 O)<sub>n</sub> C4 H4 Cl2 O3  
 CCI PMS



CM 2

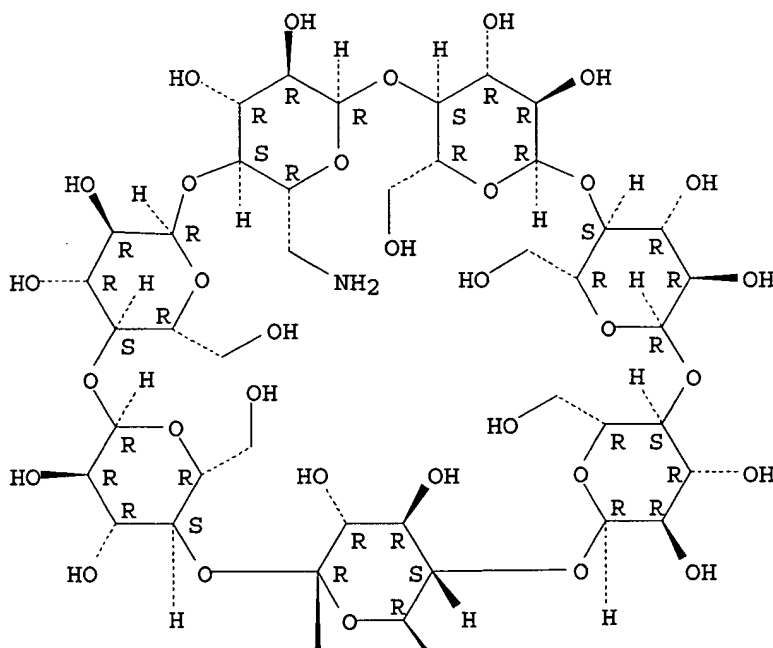
CRN 254912-03-3  
 CMF C42 H72 N2 O33 . 2 C H2 O3

CM 3

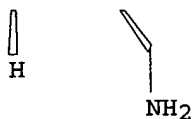
CRN 162825-08-3  
 CMF C42 H72 N2 O33

Absolute stereochemistry.

PAGE 1-A



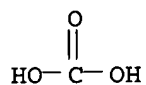
PAGE 2-A



CM 4

CRN 463-79-6

CMF C H2 O3



RN 254912-10-2 HCAPLUS

CN  $\beta$ -Cyclodextrin, 6A,6D-bis-S-(2-aminoethyl)-6A,6D-dithio-, polymer  
with dimethyl 3,3'-dithiobis[propanimidate] dihydrochloride (9CI) (CA  
INDEX NAME)

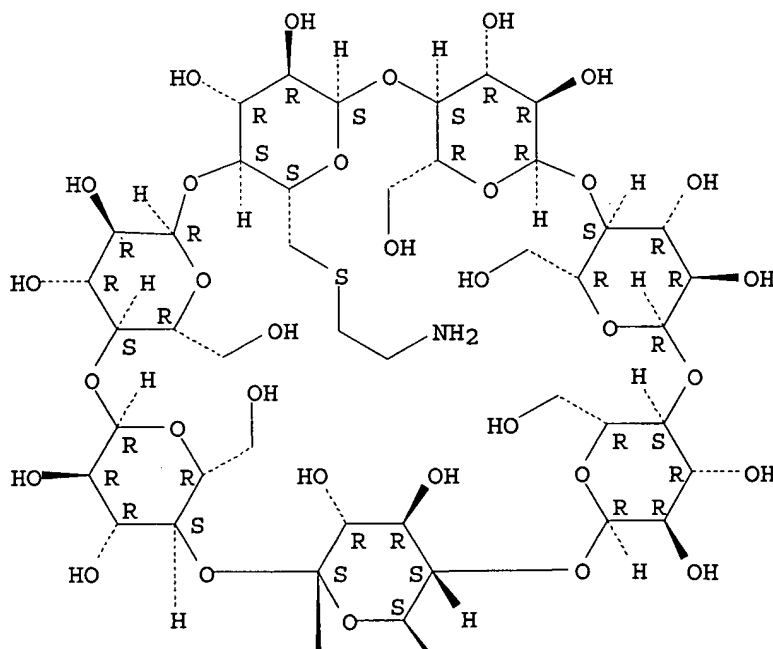
CM 1

CRN 101652-40-8

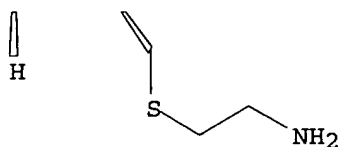
CMF C46 H80 N2 O33 S2

Absolute stereochemistry.

PAGE 1-A



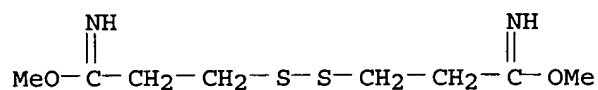
PAGE 2-A



CM 2

CRN 38285-78-8

CMF C8 H16 N2 O2 S2 . 2 Cl H



●2 HCl

RN 254912-11-3 HCAPLUS

CN β-Cyclodextrin, 6A,6D-bis-S-(2-aminoethyl)-6A,6D-dithio-, polymer  
with dimethyl octanediimide dihydrochloride (9CI) (CA INDEX NAME)

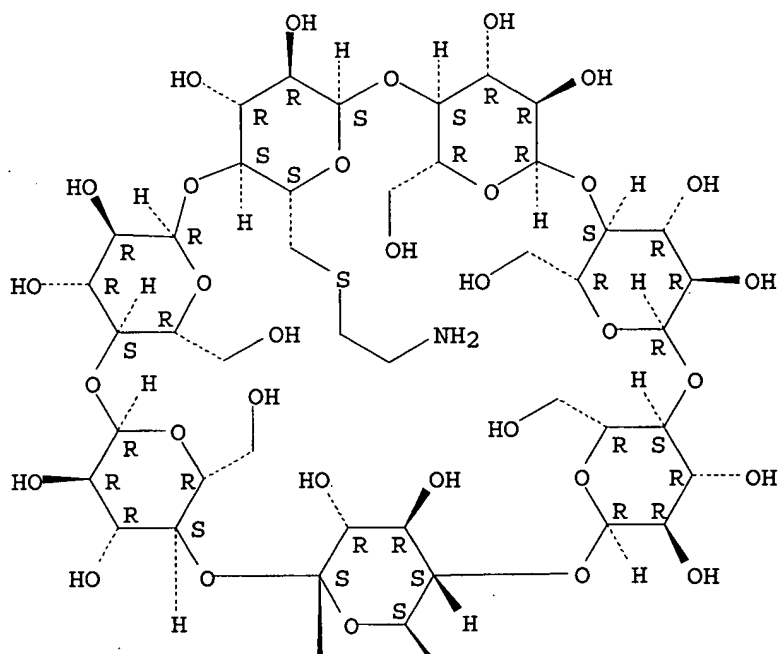
CM 1

CRN 101652-40-8

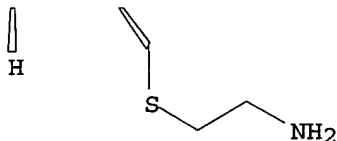
CMF C46 H80 N2 O33 S2

Absolute stereochemistry.

PAGE 1-A



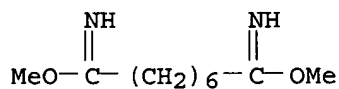
PAGE 2-A



CM 2

CRN 34490-86-3

CMF C10 H20 N2 O2 . 2 Cl H



●2 HCl

IT 7585-39-9,  $\beta$ -Cyclodextrin

RL: RCT (Reactant); RACT (Reactant or reagent)

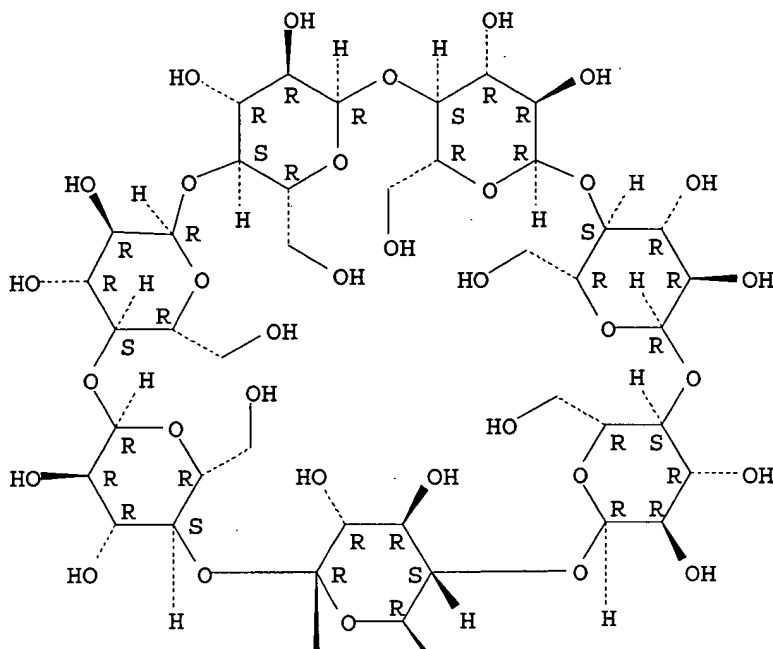
(reaction with biphenyldisulfonyl dichloride; preparation of **linear** cyclodextrin **copolymers** as drug delivery agents)

RN 7585-39-9 HCAPLUS

CN  $\beta$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 21 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:664211 HCAPLUS

DOCUMENT NUMBER: 127:351268

TITLE: Indomethacin topical preparations containing biodegradable polymer assembly having supramolecular structure

INVENTOR(S): Yui, Nobuhiko

PATENT ASSIGNEE(S): Toko Yakuhin Kogyo K. k., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09263535	A2	19971007	JP 1996-76490	19960329
PRIORITY APPLN. INFO.:			JP 1996-76490	19960329

AB The topical preparation contains indomethacin (I) and a biodegradable polymer assembly having a supramol. structure which comprises a number of  $\alpha$ -,  $\beta$ -, or  $\gamma$ -cyclodextrin, a linear polymer penetrating through the hollows of the cyclodextrins, and biodegradable moieties bonded to both ends of the polymer. The unique polymer assembly improves transdermal absorption of drugs without causing skin irritation and toxicity. A saturated  $\alpha$ -cyclodextrin solution was treated with PEG 4000BA [  $\alpha$ -(3-aminopropyl)- $\omega$ -(3-aminopropoxy)poly(oxyethylene) ] and the resulting turbid solution was ultrasonicated then let stand overnight to give a pseudopolyrotaxane comprising 35-40 cyclodextrin mols. and a threading polyoxyethylene chain. The pseudopolyrotaxane was treated with a DMS solution of Z-L-Phe-Su, prepared from carbobenzoxy-L-phenylalanine and N-hydroxysuccinimide, to give Z-L-Phe-polyrotaxane. This was hydroxypropylated with propylene oxide, followed by deprotection of carbobenzoxy group. Permeation of I through a sheet of hairless mouse skin pretreated with the hydroxypropylated polyrotaxane was 19.27  $\mu\text{g}/\text{cm}^2$  for 8 h, vs. 9.10  $\mu\text{g}/\text{cm}^2$  for a control using H<sub>2</sub>O as pretreatment agent.

IC ICM A61K031-405  
ICS A61K031-405; A61K009-00; A61K047-40; C08B037-16; C08G065-08

CC 63-6 (Pharmaceuticals)

IT **7585-39-9DP**,  $\beta$ -Cyclodextrin, rotaxane compds. with biodegradable moiety-terminated **polymers 17465-86-0DP**,  $\gamma$ -Cyclodextrin, rotaxane compds. with biodegradable moiety-terminated **polymers**  
RL: PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of cyclodextrin assembly threaded by **linear polymers** having biodegradable moieties such as amino acids as absorption promoters for indomethacin transdermal preps.)

IT **198334-78-0DP**, N,N'-bis(phenylalanyl) derivative, hydroxypropyl derivs.  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation, structure of cyclodextrin-**polymer** inclusion compds., rotaxanes, having biodegradable moieties such as amino acids as absorption promoters for indomethacin transdermal preps.)

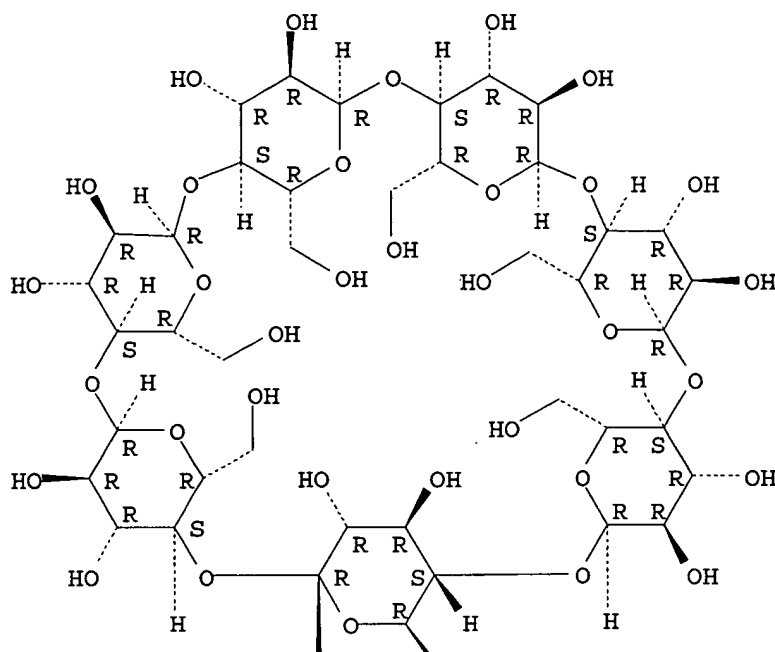
IT **7585-39-9DP**,  $\beta$ -Cyclodextrin, rotaxane compds. with biodegradable moiety-terminated **polymers 17465-86-0DP**,  $\gamma$ -Cyclodextrin, rotaxane compds. with biodegradable moiety-terminated **polymers**  
RL: PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of cyclodextrin assembly threaded by **linear polymers** having biodegradable moieties such as amino acids as absorption promoters for indomethacin transdermal preps.)

RN 7585-39-9 HCAPLUS

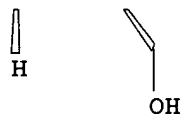
CN  $\beta$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

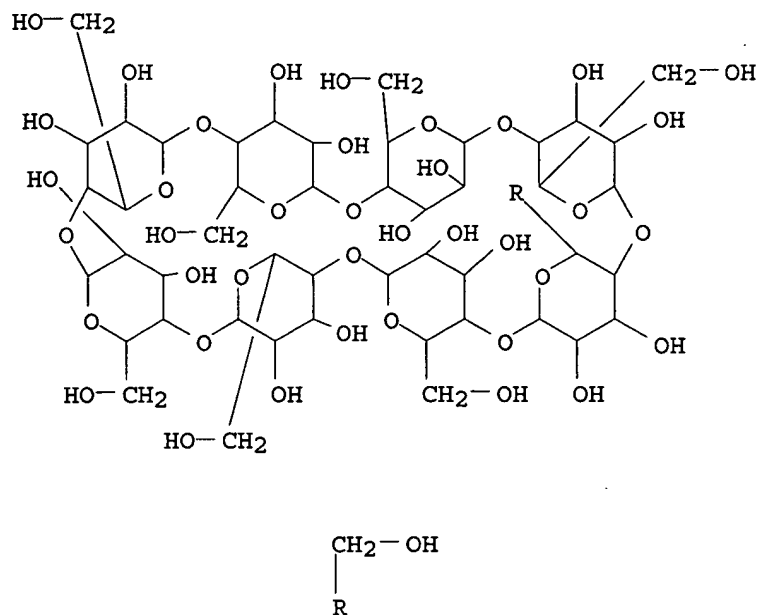


PAGE 2-A



RN 17465-86-0 HCAPLUS  
CN  $\gamma$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

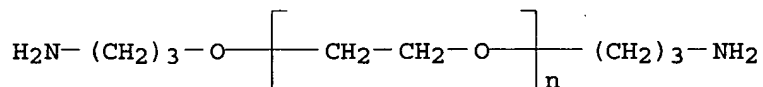




IT 198334-78-0DP, N,N'-bis(phenylalanyl) derivative, hydroxypropyl derivs.  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation, structure of cyclodextrin-polymer inclusion compds., rotaxanes, having biodegradable moieties such as amino acids as absorption promoters for indomethacin transdermal preps.)  
 RN 198334-78-0 HCAPLUS  
 CN  $\alpha$ -Cyclodextrin, compd. with  $\alpha$ -(3-aminopropyl)- $\omega$ -(3-aminopropoxy)poly(oxy-1,2-ethanediyl) (1:1) (9CI) (CA INDEX NAME)

CM 1

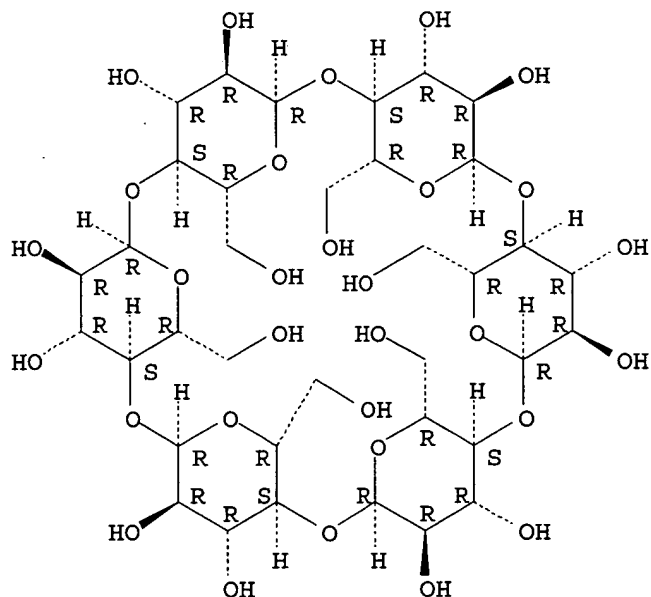
CRN 34901-14-9  
 CMF (C2 H4 O)<sub>n</sub> C6 H16 N2 O  
 CCI PMS



CM 2

CRN 10016-20-3  
 CMF C36 H60 O30

Absolute stereochemistry.



L57 ANSWER 22 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:377201 HCAPLUS

DOCUMENT NUMBER: 125:41804

TITLE: Biodegradable medicinal polymer assembly with supermolecular structure

INVENTOR(S): Yui, Nobuhiko

PATENT ASSIGNEE(S): Japan

SOURCE: PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9609073	A1	19960328	WO 1995-JP909	19950512
W: AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, KG, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TT, UA, UG, US, UZ, VN				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
JP 08092130	A2	19960409	JP 1994-254872	19940924
CA 2176383	AA	19960328	CA 1995-2176383	19950512
AU 9524199	A1	19960409	AU 1995-24199	19950512
EP 730869	A1	19960911	EP 1995-918178	19950512
EP 730869	B1	20010627		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CN 1135720	A	19961113	CN 1995-190936	19950512
AT 202486	E	20010715	AT 1995-918178	19950512
US 5855900	A	19990105	US 1996-637733	19960426

PRIORITY APPLN. INFO.:

JP 1994-254872 A 19940924

WO 1995-JP909 W 19950512

AB The invention relates to a highly water-soluble polymer having arbitrarily

controllable drug-carrying capacity and drug-releasing characteristics and serving as a novel drug carrier widely applicable in vivo; and a biodegradable medicinal polymer assembly having a supermol. structure and being capable of releasing a drug in response to a specific biodegradn. occurring in each disease. The assembly comprises a number of drug-carrying cyclic compds. prepared by binding a drug to  $\alpha$ ,  $\beta$  or  $\gamma$ -cyclodextrin, a linear polymer penetrating through the hollows of the cyclic compds., and biodegradable moieties bonded to both ends of the polymer. A biodegradable medicinal polymer assembly with supermol. structure for mitomycin C delivery is given as an example.

IC ICM A61K047-48

CC 63-6 (Pharmaceuticals)

IT 63-91-2DP, L-Phenylalanine, reaction products with rotaxanes

**7585-39-9DP**,  $\beta$ -Cyclodextrin, inclusion compds. with drugs,

reaction products with **linear polymers** and

biodegradable moieties **10016-20-3DP**,  $\alpha$ -Cyclodextrin,

inclusion compds. with drugs, reaction products with **linear**

**polymers** and biodegradable moieties **17465-86-0DP**,

$\gamma$ -Cyclodextrin, inclusion compds. with drugs, reaction products with

**linear polymers** and biodegradable moieties

**25322-68-3DP**, Polyethylene glycol, terminal amine-containing, reaction

products with drug-cyclodextrin inclusion compds. and biodegradable

moieties **25322-69-4DP**, Polypropylene glycol, terminal amine-containing,

reaction products with drug-cyclodextrin inclusion compds. and

biodegradable moieties **65607-79-6DP**, Polyisobutylene glycol, terminal

amine-containing, reaction products with drug-cyclodextrin inclusion compds.

and biodegradable moieties

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological

study); PREP (Preparation); USES (Uses)

(biodegradable medicinal **polymer** assembly with supermol.

structure for drug delivery)

IT **7585-39-9DP**,  $\beta$ -Cyclodextrin, inclusion compds. with drugs,

reaction products with **linear polymers** and

biodegradable moieties **10016-20-3DP**,  $\alpha$ -Cyclodextrin,

inclusion compds. with drugs, reaction products with **linear**

**polymers** and biodegradable moieties **17465-86-0DP**,

$\gamma$ -Cyclodextrin, inclusion compds. with drugs, reaction products with

**linear polymers** and biodegradable moieties

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological

study); PREP (Preparation); USES (Uses)

(biodegradable medicinal **polymer** assembly with supermol.

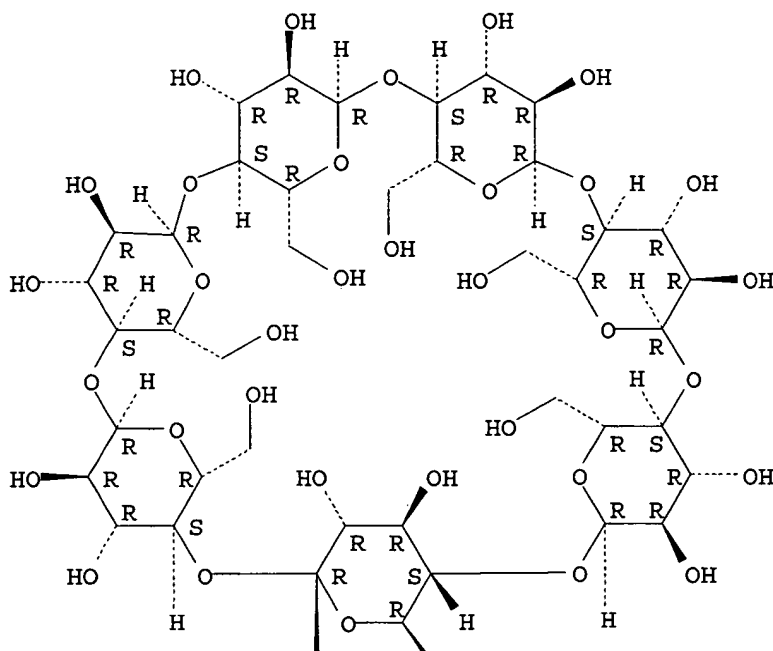
structure for drug delivery)

RN 7585-39-9 HCAPLUS

CN  $\beta$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

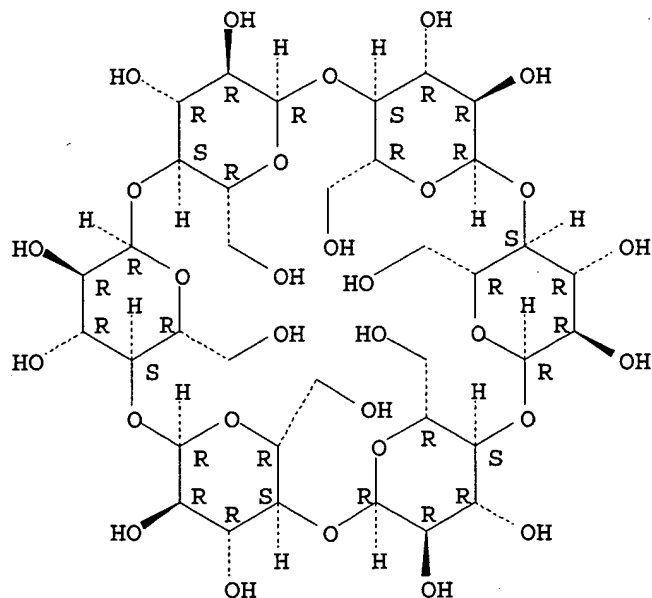


PAGE 2-A

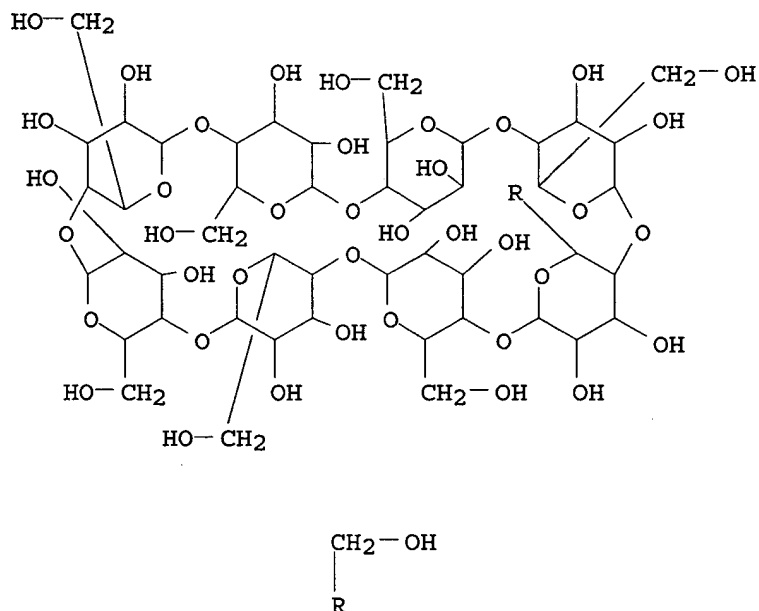


RN 10016-20-3 HCAPLUS  
CN  $\alpha$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 17465-86-0 HCAPLUS  
 CN  $\gamma$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)



L57 ANSWER 23 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1995:994588 HCAPLUS  
 DOCUMENT NUMBER: 124:30892  
 TITLE: Process and apparatus for rapid continuous sequence  
 analysis of linear polymers  
 INVENTOR(S): Schwertner, Heiko  
 PATENT ASSIGNEE(S): Germany

SOURCE: Ger. Offen., 8 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4410655	A1	19950928	DE 1994-4410655	19940326
DE 4410655	C2	20010628		

PRIORITY APPLN. INFO.: DE 1994-4410655 19940326

AB The title process involves bonding a compound (i.e., spacer) having a C10-20 chain to a solid support, placing a cyclic compound (e.g., cyclodextrin or cyclodextrin bonded to 2 different fluorescent dyes) over the chain of the compound, bonding a linear polymer (e.g., DNA, RNA, protein, or polysaccharide) to the end of the chain of the compound, bonding a mol. having dimensions larger than the cyclic compound to the end of the polymer chain, applying an electromagnetic field to cause the cyclic compound to migrate along the polymer chain, and determining the sequence of units in the polymer chain by computer anal. of spectral data (e.g., fluorescence spectra).

IC ICM G01N027-447

ICS G01N033-44; G01N033-50

CC 36-4 (Physical Properties of Synthetic High Polymers)

Section cross-reference(s): 9, 33, 80

IT 12619-70-4, Cyclodextrin

RL: ARU (Analytical role, unclassified); MSC (Miscellaneous); ANST (Analytical study)

(fluorescent dye-modified; for sequence anal. of linear polymers from fluorescence spectra)

IT 12619-70-4, Cyclodextrin

RL: ARU (Analytical role, unclassified); MSC (Miscellaneous); ANST (Analytical study)

(fluorescent dye-modified; for sequence anal. of linear polymers from fluorescence spectra)

RN 12619-70-4 HCAPLUS

CN Cyclodextrin (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L57 ANSWER 24 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1994:534822 HCAPLUS

DOCUMENT NUMBER: 121:134822

TITLE: Macromolecular recognition: inclusion complexes of polymers with cyclodextrins and preparation of polyrotaxanes

AUTHOR(S): Harada, Akira

CORPORATE SOURCE: Fac. Sci., Osaka Univ., Toyonaka, 560, Japan

SOURCE: Polymer News (1993), 18(12), 358-63

CODEN: PLYNBU; ISSN: 0032-3918

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 23 refs.

CC 35-0 (Chemistry of Synthetic High Polymers)

IT 12619-70-4P, Cyclodextrin

RL: SPN (Synthetic preparation); PREP (Preparation) (rotaxanes with linear polymers, preparation of)

IT 12619-70-4P, Cyclodextrin

RL: SPN (Synthetic preparation); PREP (Preparation)  
(rotaxanes with **linear polymers**, preparation of)

RN 12619-70-4 HCAPLUS

CN Cyclodextrin (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L57 ANSWER 25 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1983:143923 HCAPLUS

DOCUMENT NUMBER: 98:143923

TITLE: Asymmetric induction in the copolymerization of  
methacrylic esters with maleic anhydride in the  
presence of  $\beta$ -cyclodextrin

AUTHOR(S): Kunieda, Norio; Yamane, Satoshi; Taguchi, Hiromu;  
Kinoshita, Masayoshi

CORPORATE SOURCE: Fac. Eng., Osaka City Univ., Osaka, 558, Japan

SOURCE: Makromolekulare Chemie, Rapid Communications (1983),  
4(2), 57-60

CODEN: MCRCD4; ISSN: 0173-2803

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The **copolymer** of Ph, benzyl, and 1-naphthyl methacrylate with  
maleic anhydride (I) in the presence of  $\beta$ -cyclodextrin (II) [ **7585-39-9** ] gave optically active **copolymers**. All the  
**copolymers** were dextrorotatory and the ORD of the  
**copolymers** in dioxane,  $\text{CHCl}_3$ , and THF exhibited a pos. plane  
curve. The sp. rotations of the **polymers** increased  
**linearly** with increasing I mol. ratio. The asym. induction in the  
**copolymer** was tentatively attributed to capture of the aryl moiety  
of the ester into the chiral hydrophobic cavity of II affording a stable  
inclusion complex so the ester mol. can be oriented stereospecifically in  
**copolymer**.

CC 35-4 (Chemistry of Synthetic High Polymers)

IT 7585-39-9

RL: USES (Uses)

(methacrylic ester **polymer** with maleic anhydride in presence  
of, asym. induction in)

IT 7585-39-9

RL: USES (Uses)

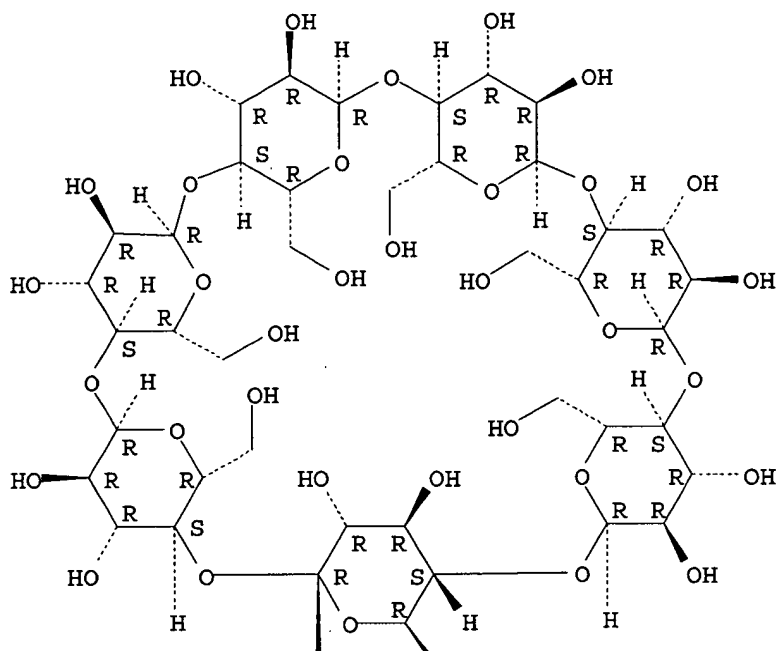
(methacrylic ester **polymer** with maleic anhydride in presence  
of, asym. induction in)

RN 7585-39-9 HCAPLUS

CN  $\beta$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L57 ANSWER 26 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1979:439939 HCAPLUS

DOCUMENT NUMBER: 91:39939

TITLE: Polymer inclusion compounds by polymerization of monomers in  $\beta$ -cyclodextrin matrix in DMF solution

AUTHOR(S): Maciejewski, Mieczyslaw; Gwizdowski, Andrzej; Peczak, Piotr; Pietrzak, Alicja

CORPORATE SOURCE: Inst. Org. Chem. Technol., Warsaw Tech. Univ., Warsaw, Pol.

SOURCE: Journal of Macromolecular Science, Chemistry (1979), A13(1), 87-109

CODEN: JMCHBD; ISSN: 0022-233X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The **polymn.** of a preformed adduct [70763-69-8] of  $\beta$ -cyclodextrin (I) with  $\text{CH}_2\text{:CCl}_2$  (II) in DMF lead entirely to a **polymer** containing cyclic units, whereas introduction of I and II sep. lead to II **polymer** [9002-85-1] as a byproduct. Adducts formed between I and Me acrylate, styrene, or methacrylonitrile did not produce **polymer** inclusion compds. after radical **polymn.** An absence of chemical bonds between I and II **polymer** was assumed.

QD 380.56



The **polymn.** of II in the presence of linear dextrin [9004-53-9] did not produce inclusion compds.

CC 35-4 (Synthetic High Polymers)

IT 70763-66-5P 70763-67-6P 70763-68-7P

RL: FORM (Formation, nonpreparative); PREP (Preparation)  
(formation of, **polymn.** in relation to)

IT 70763-69-8

RL: RCT (Reactant); RACT (Reactant or reagent)  
(**polymn.** of, **polymer** inclusion compound formation in)

IT 70763-66-5P 70763-67-6P 70763-68-7P

RL: FORM (Formation, nonpreparative); PREP (Preparation)  
(formation of, **polymn.** in relation to)

RN 70763-66-5 HCAPLUS

CN  $\beta$ -Cyclodextrin, compd. with 2-methyl-2-propenenitrile (9CI) (CA INDEX NAME)

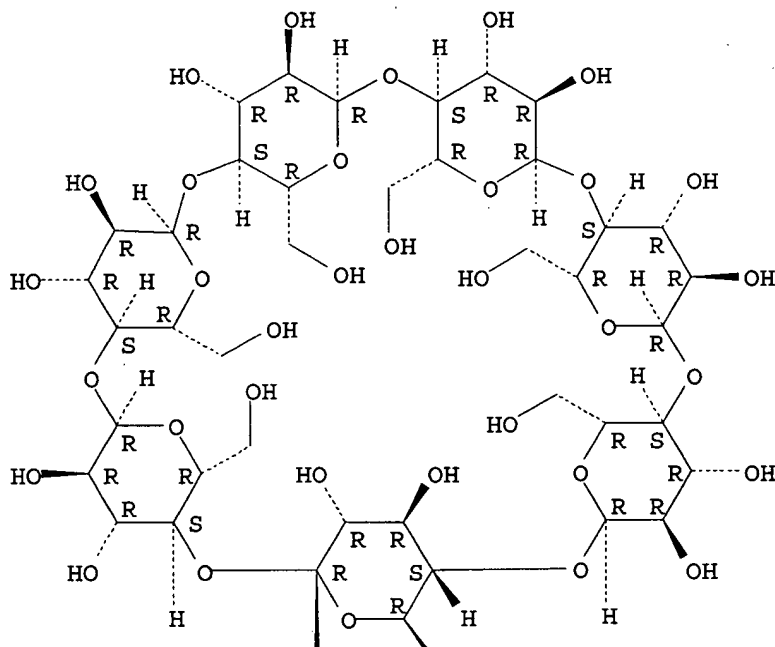
CM 1

CRN 7585-39-9

CMF C42 H70 O35

Absolute stereochemistry.

PAGE 1-A



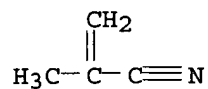
PAGE 2-A



CM 2

CRN 126-98-7

CMF C4 H5 N



RN 70763-67-6 HCAPLUS

CN  $\beta$ -Cyclodextrin, compd. with ethenylbenzene (9CI) (CA INDEX NAME)

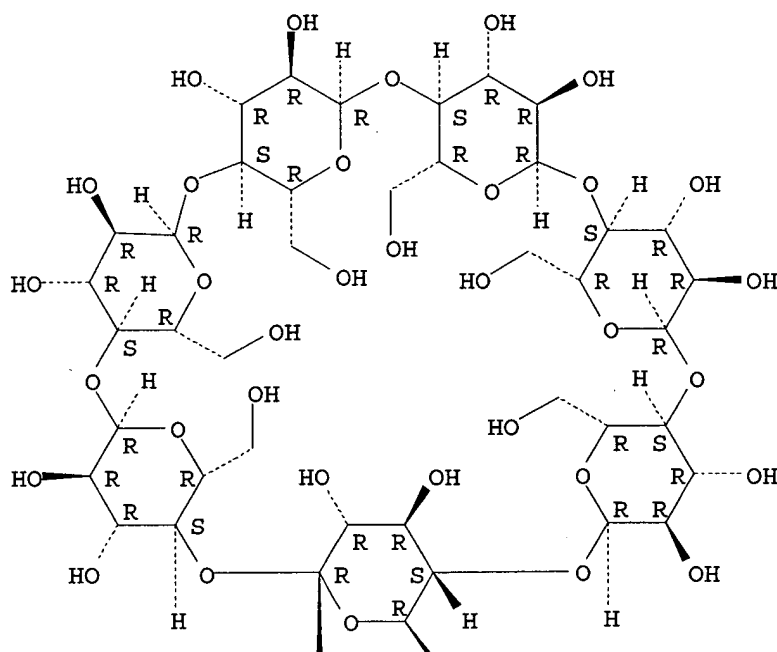
CM 1

CRN 7585-39-9

CMF C42 H70 O35

Absolute stereochemistry.

PAGE 1-A



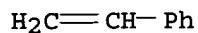
PAGE 2-A



CM 2

CRN 100-42-5

CMF C8 H8



RN 70763-68-7 HCAPLUS

CN  $\beta$ -Cyclodextrin, compd. with methyl 2-propenoate (9CI) (CA INDEX NAME)

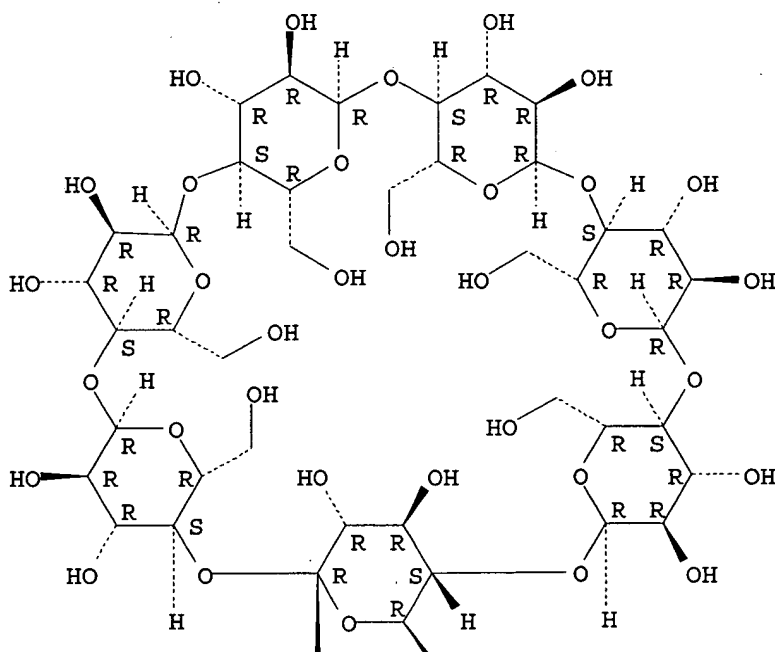
CM 1

CRN 7585-39-9

CMF C42 H70 O35

Absolute stereochemistry.

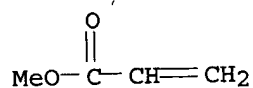
PAGE 1-A



PAGE 2-A



CM 2

CRN 96-33-3  
CMF C4 H6 O2

IT 70763-69-8

RL: RCT (Reactant); RACT (Reactant or reagent)  
(polymn. of, polymer inclusion compound formation in)

RN 70763-69-8 HCAPLUS

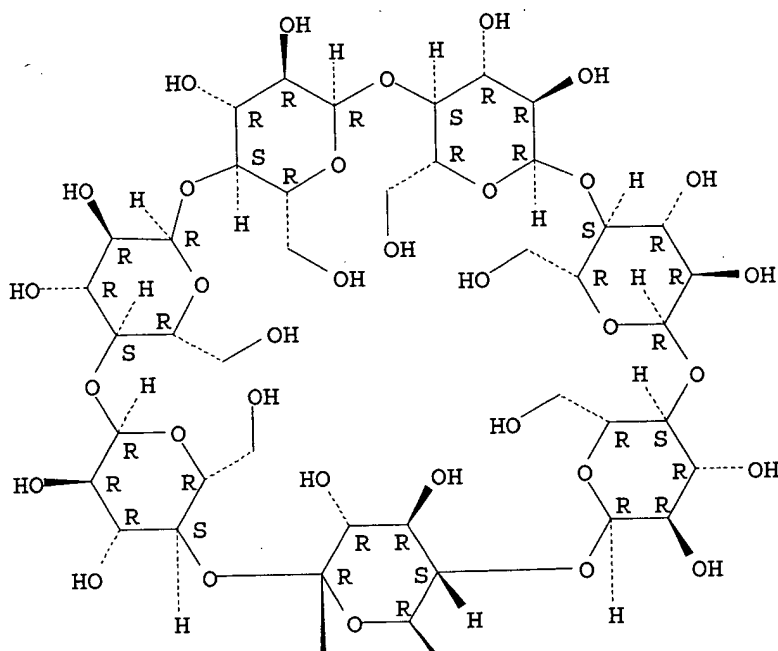
CN  $\beta$ -Cyclodextrin, compd. with 1,1-dichloroethene (9CI) (CA INDEX NAME)

CM 1

CRN 7585-39-9  
CMF C42 H70 O35

Absolute stereochemistry.

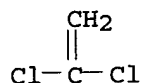
PAGE 1-A



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CM 2

CRN 75-35-4  
CMF C2 H2 Cl2

L57 ANSWER 27 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1977:92260 HCAPLUS  
DOCUMENT NUMBER: 86:92260  
TITLE: Defoaming  
INVENTOR(S): Honma, Itomi  
PATENT ASSIGNEE(S): Kao Soap Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 51133960	A2	19761120	JP 1975-58369	19750516
JP 55041122	B4	19801022		

PRIORITY APPLN. INFO.: JP 1975-58369 19750516

AB  $\beta$ -Cyclodextrin (I) [ 7585-39-9] was used as a defoaming agent for detergents or for the flotation of limonite [1317-63-1]. Thus, 1 kg cotton underwear was washed with 40 g detergent containing linear alkylbenzenesulfonate 20, Na tripolyphosphate (II) 18, Na silicate 8, Na<sub>2</sub>CO<sub>3</sub> 5, soap 1, water 10, and Na<sub>2</sub>SO<sub>4</sub> 38% and rinsed with 30 L water containing 20 g defoaming composition (I 20, corn starch 25, Na<sub>2</sub>SO<sub>4</sub> 45, and II 10%).

IC C02C005-02

CC 46-4 (Surface Active Agents and Detergents)  
Section cross-reference(s): 54